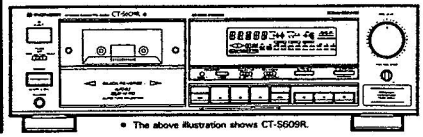
PIONEER®
The Art of Entertainment

Service Manual



STEREO CASSETTE DECK

CT-S609R
CT-339
CT-339-S

CT–S609R, CT–339 AND CT–339–S HAVE THE FOLLOWING:

Type	Model			Power Requirement	Remarks
	CT–S609R	CT–339	CT–339–S		
KUC	○	–	–	AC120V only	
HEM	○	○	–	AC220V, 240V (switchable) *	
HB	○	○	–	AC220V, 240V (switchable) *	
HEWM	–	–	○	AC220V, 240V (switchable) *	
SD	○	○	–	AC110V, 120V–127V, 220V, 240V (switchable)	

* Change the primary wiring of the power transformer.

- **This manual is applicable to the CT–S609R/KUC, HEM, HB, SD, CT–339/HEM, HB, SD and CT–339–S/HEWM types.**
- **As to the CT–S609R/HEM, HB, SD types, refer to page 51.**
- **As to the CT–339/HEM, HB, SD and CT–339–S/HEWM types, refer to page 52.**
- **Ce manuel pour le service comprend les explications de réglage en français.**
- **Este manual de servicio trata del método ajuste escrito en español.**

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This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

1. SAFETY INFORMATION

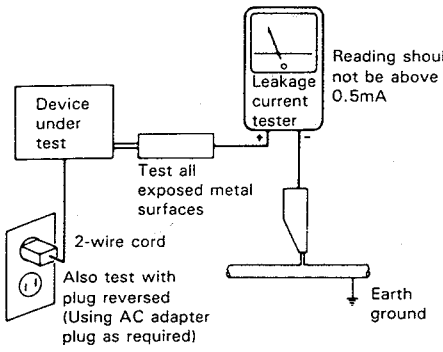
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

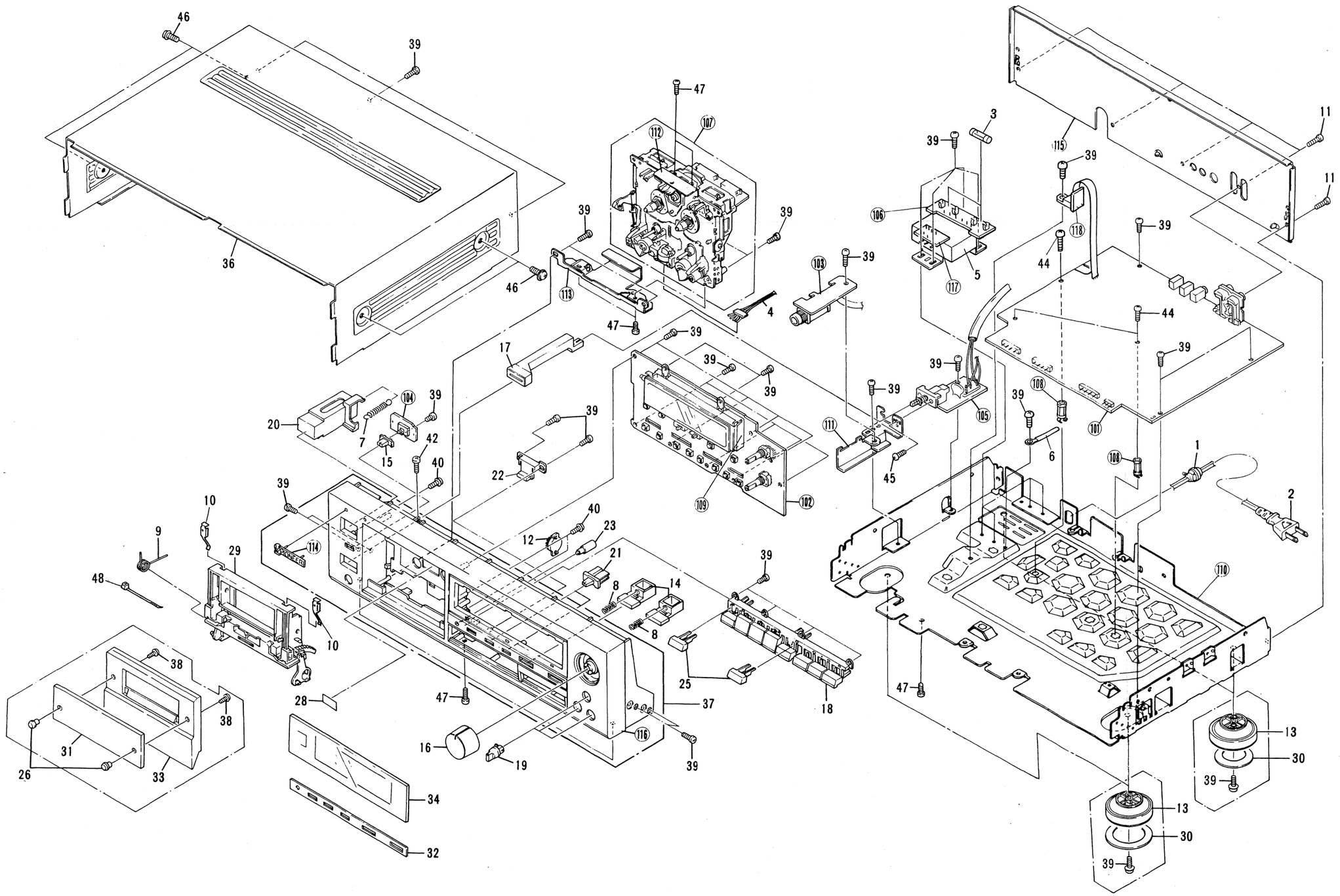
Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS AND PARTS LIST

2.1 EXTERIOR (For CT–S609R/KUC type)



NOTI
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- The
to us
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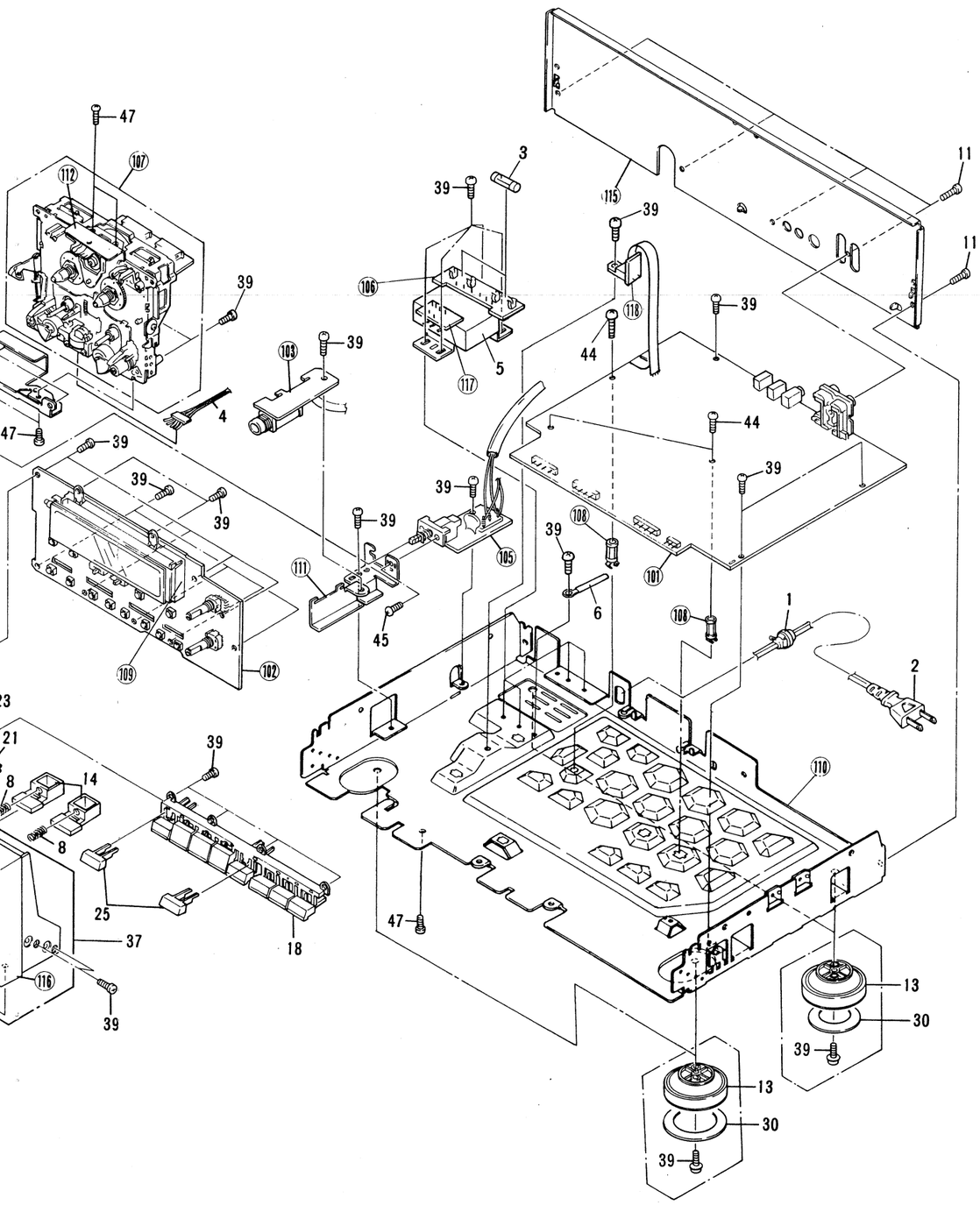
Part

Mark

⚠
⚠
⚠

⚠



NOTES:

- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Parts List of Exterior (For CT–S609R/KUC type)

Mark	No.	Description	Part No.
⚠	1	Strain relief	CM – 22
⚠	2	AC Power cord	RDG1010
⚠	3	FU1201, FU1202 Fuse (1.25A)	REK – 073
	4	Connector assembly 6P	
⚠	5	Power transformer (T1)	RTT1170
	6	Cord clamper	RNE – 513
	7	Ratchet spring	RBH1008
	8	Push spring	RBH1146
	9	Door spring (L)	RBH1203
	10	Half pressure spring	RBK1004
	11	.....	
	12	Damper assembly	REC1013
	13	Insulator	VNK1095
	14	Knob	RAC1604
	15	Slide knob (A)	RAC1236
	16	VR knob	RAC1363
	17	Power button	RAC1364
	18	Operation knob	RAC1365
	19	Headphone knob	RAC1366
	20	Eject konb	RAC1367
	21	Slide knob (B)	RAC1392
	22	Tact knob	RAC1409
	23	Counter reset knob	RAC1400
	24	.....	
	25	Decoration plate	RAP1007
	26	Decoration screw	RAT1001
	27	.....	
	28	Remain display paper	REE – 113
	29	Door pocket	RNT1013
	30	Stopper	VEC1061
	31	Door lens	RAH1244
	32	Dolby name plate	RAH1865
	33	Door panel	RAH1863
	34	FL lens	RAH1867
	35	.....	
	36	Bonnet	RXX1396
	37	Front panel assembly	RXX1391
	38	Screw	ABZ26P050FMC
	39	Screw	BBZ30P080FMC
	40	Screw	ARZ26P060FMC
	41	.....	
	42	Screw	BCZ30P060FMC
	43	.....	
	44	Screw	IBZ30P150FCU
	45	Screw	PMA30P060FMC
	46	Screw	FBT40P080FZK
	47	Screw	BBZ30P060FZK
	48	Binder	REC – 371
	101	Main unit	
	102	Display unit	
	103	Headphone unit	
	104	Timer SW unit	
	105	Power SW unit	
	106	Transformer 2 unit	
	107	Mechanism unit	
	108	PCB spacer	
	109	FL holder	
	110	Main chassis	
	111	Headphone blacket	
	112	Mechanism mount plate (U)	
	113	Mechanism mount plate (D)	
	114	Name plate	
	115	Rear panel	
	116	Front panel	
	117	Transformer 1 unit	
	118	Regulator IC unit	

2.2 MECHANISM UNIT (For CT–S609R/KUC type)

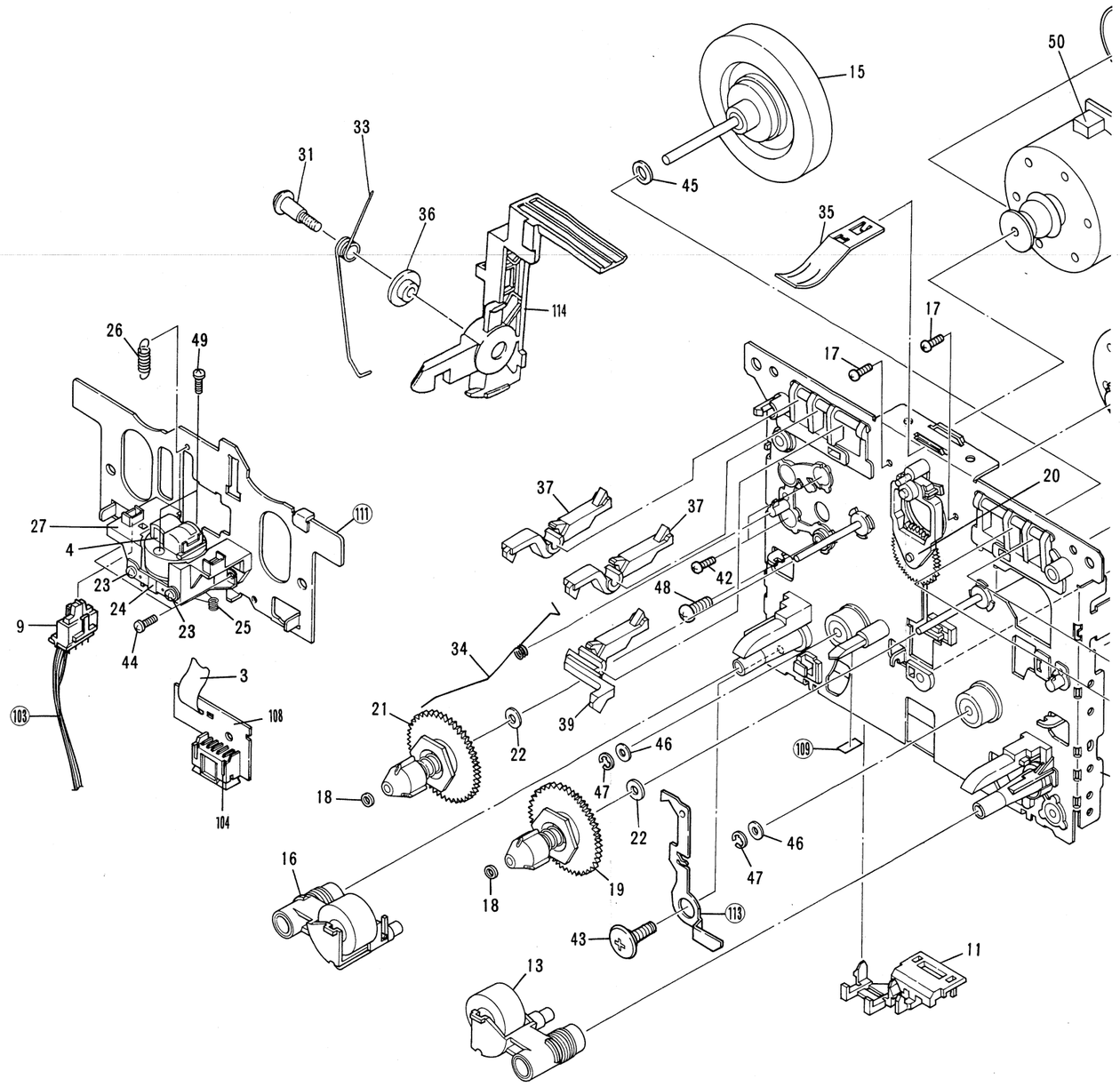
Parts List

Mark	No.	Description	Part No.
	1	Shaft	RLA1130
	2	Planger	RLA1132
	3	HD FPC (R/P)	RNP1232
	4	R/P, E head	RPB1030
	5	Push switch	RSG1018
	6	Motor assembly	RXM1029
	7	Motor assembly (Main)	RXM1032
	8	Solenoid	RXP1010
	9	Quick sensor	SPI – 320 – AB
	10	Photo transistor	SPI33534FG
	11	Wire holder	RNK1530
	12	Main belt	REB1157
	13	Pinch roller assembly	RXA1183
	14	Flywheel assembly	RXA1294
	15	Flywheel assembly	RXA1295
	16	Pinch roller (L) assembly	RXA1296
	17	Screw	RBA1076
	18	Washer	RBF – 057
	19	TU Reel assembly	RXA1184
	20	Idler assembly	RXA1248
	21	Reel assembly	RXC – 040
	22	Washer	RBF1038
	23	Azimuth screw	RBA1080
	24	Azimuth spring	RBK1029
	25	Rotation spring	RBL – 085
	26	Head base spring	RBL1003
	27	Head housing assembly	RXA1293
	28	Slide spring	RBH1239
	29	Play arm	RNK1525
	30	Cam gear (3R)	RNK1672
	31	Screw	RBA1078
	32	·····	
	33	Eject lever spring (L)	RBH1262
	34	Eject prevention spring(L)	RBH1234
	35	Cassette hold spring	RBK1031
	36	Lever collar (B)	RLA1146
	37	REC detection lever	RNK1527
	38	PACK detection lever (P)	RNK1543
	39	Metal detection lever (L)	RNK1529
	40	·····	
	41	·····	
	42	Screw	PMZ26P050FMC
	43	Screw	RBA1048
	44	Screw	RBA1077
	45	Washer	WA26D045D025
	46	Washer	WA26D047D050
	47	E ring	YE15FUC
	48	Screw	PBZ30P080FMC
	49	Screw	PMZ14P050FNI
	50	Holder cushion (L)	RED1027
	51	Head assembly (R/P)	RXA1378

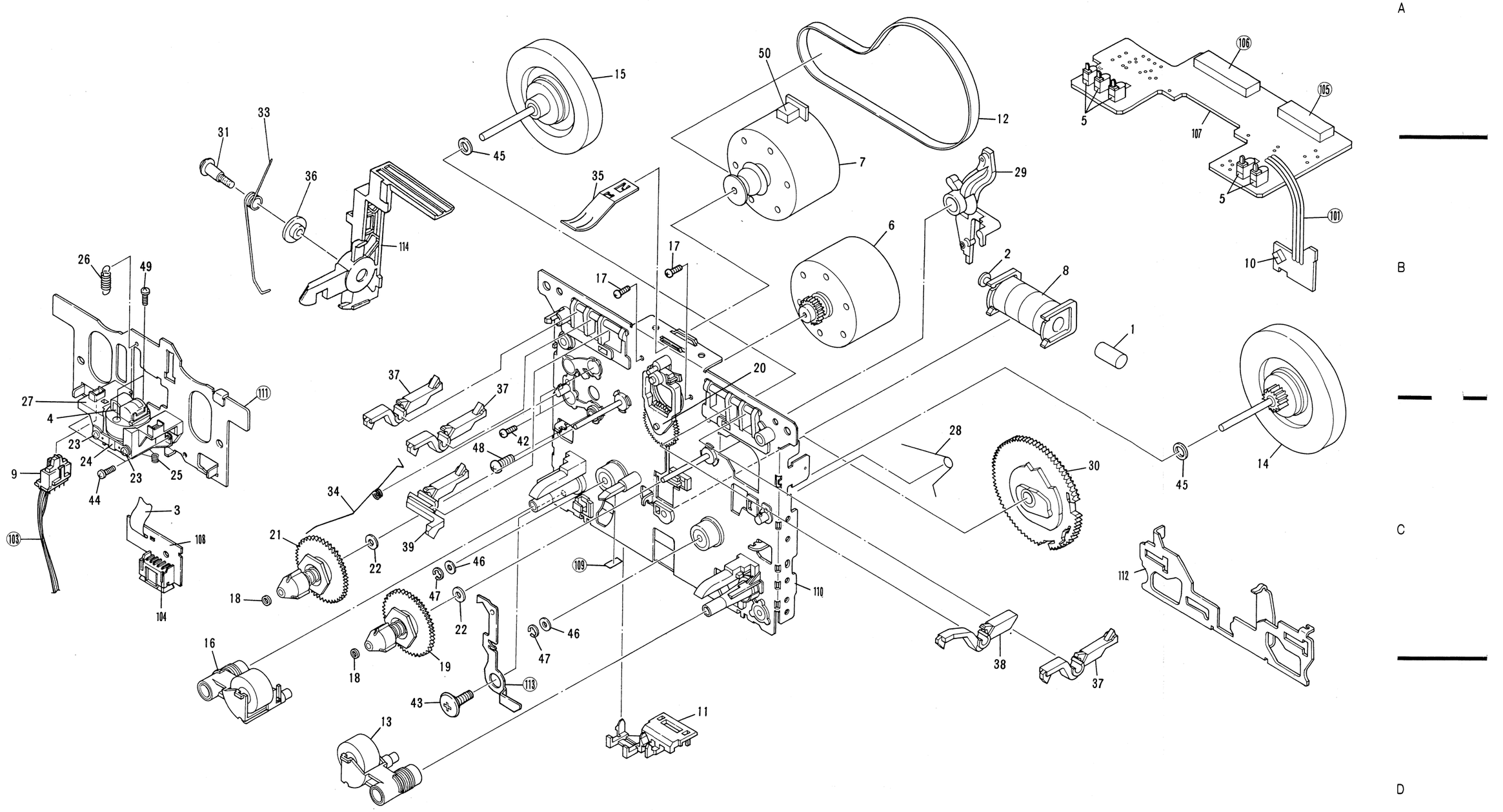
Mark	No.	Description	Part No.
	101	Triple – conductor jumper wire	
	102	·····	
	103	QS lead wire	
	104	Connector (6P)	RKP1401
	105	Connector (7P)	
	106	Connector (10P)	
	107	P.C. board	RNP1279
	108	Head P.C.B. R/P	RNP1351
	109	Reflection plate	
	110	Chassis assembly	RXA1291
	111	Head base	
	112	Slide plate	RNE1345
	113	Eject prevention arm (L)	
	114	Eject lever (L)	RNK1593

* : The head assembly (R/P) in No. 51 is a component of Nos. 3 and 4 and can be supplied as service.

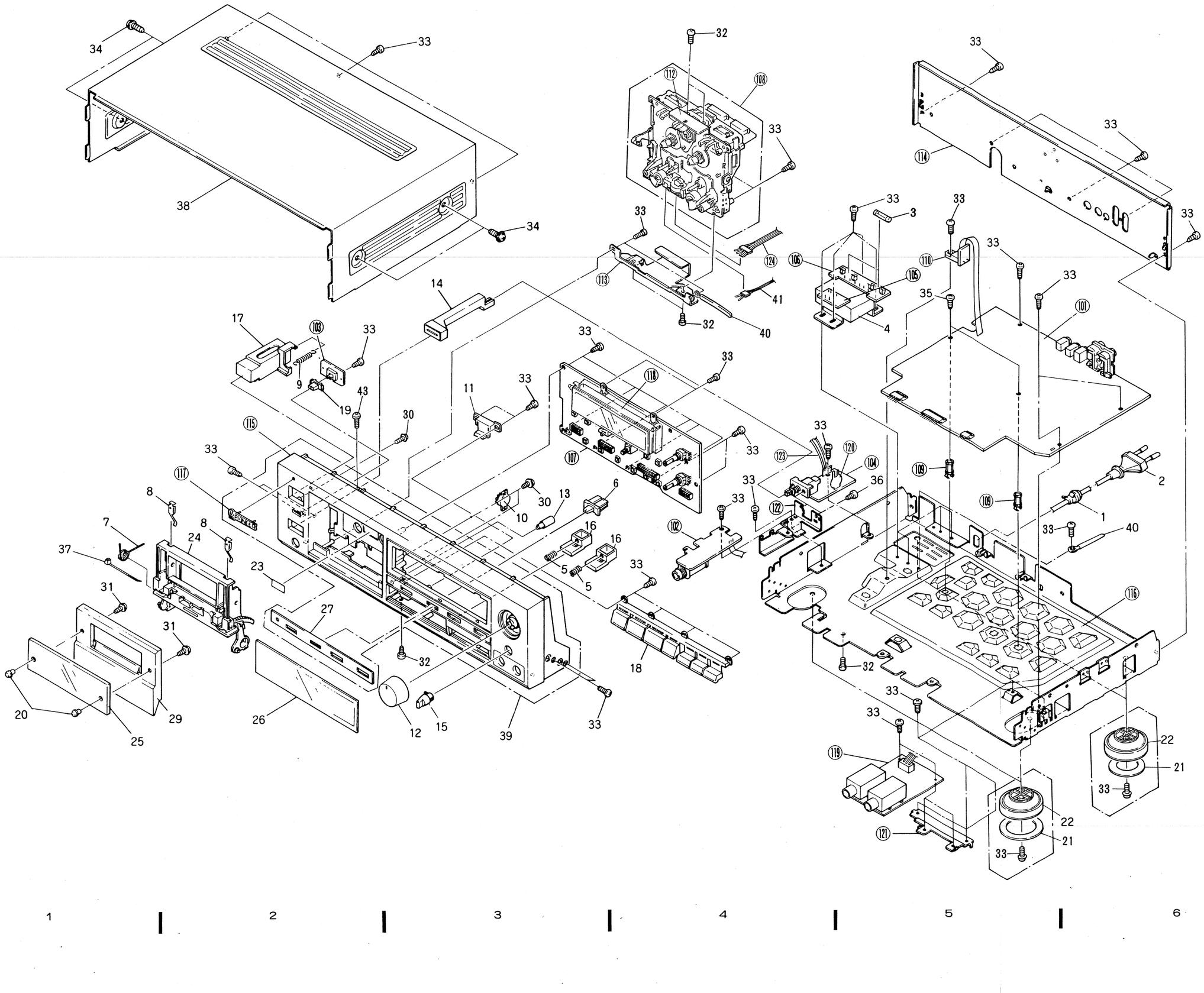
Mechanism Unit (For CT–S609R/KUC type)



Mechanism Unit (For CT-S609R/KUC type)



2.3 EXTERIOR (For CT–339/HEM type)



Parts

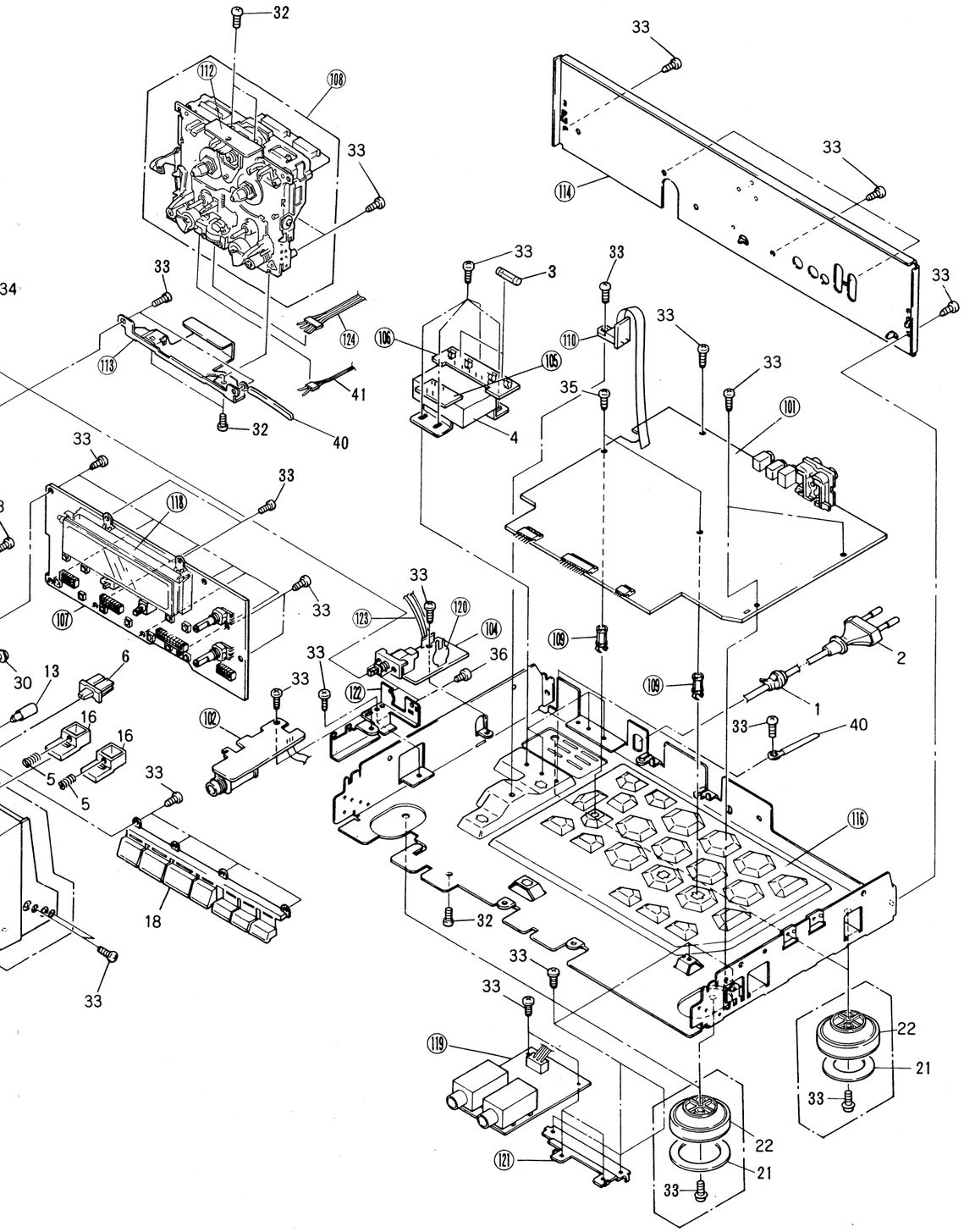
Mark

A

B

C

D



Parts List of Exterior

Mark	No.	Description	Part No.
⚠	1	Strain relief	CM – 22B
⚠	2	AC Power cord	PDG1003
⚠	3	FU1, FU2 fuse (1.25A)	REK – 101
⚠	4	T1 Power transformer	RTT1137
	5	Push spring	RBH1146
	6	Slide knob (B) (For Mechanism unit)	RAC1392
	7	Door spring (L)	RBH1203
	8	Half pressure spring	RBK1004
	9	Ratchet spring	RBH1008
	10	Damper ass'y	REC1013
	11	Tact knob	RAC1409
	12	Knob (REC LEVEL)	RAC1363
	13	Knob (COUNTER RESET)	RAC1400
	14	Button (POWER)	RAC1364
	15	Knob (REC BALANCE)	RAC1366
	16	Knob (CD SYNCHRO AUTO BLE)	RAC1604
	17	Knob (EJECT)	RAC1367
	18	Knob (◀◀, ■, ▶, ▶▶, ●, ❚❚, ⏻)	RAC1345
	19	Slide knob (A)	RAC1236
	20	Screw	RAT1001
	21	Stopper	VEC1061
	22	Insulator	VNK1095
	23	Remaining sheet	REE – 113
	24	Door pocket	RNT1013
	25	Door lens	RAH1244
	26	FL lens	RAH1870
	27	Dolby name plate	RAH1866
	28	.....	
	29	Door panel	RAH1896
	30	Screw	ARZ26P060FMC
	31	Screw	ABZ26P050FMC
	32	Screw	BBZ30P060FZK
	33	Screw	BBZ30P080FMC
	34	Screw	FBT40P080FZK
	35	Screw	IBZ30P150FCU
	36	Screw	PMA30P060FMC
	37	Binder	REC – 371
	38	Bonnet	RXX1396
	39	Front panel ass'y	RXX1392
	40	Cord clamper	RNE – 513
	41	Connector assembly 2P	RKP1361
	42	.....	
	43	Screw	BCZ30P060FMC

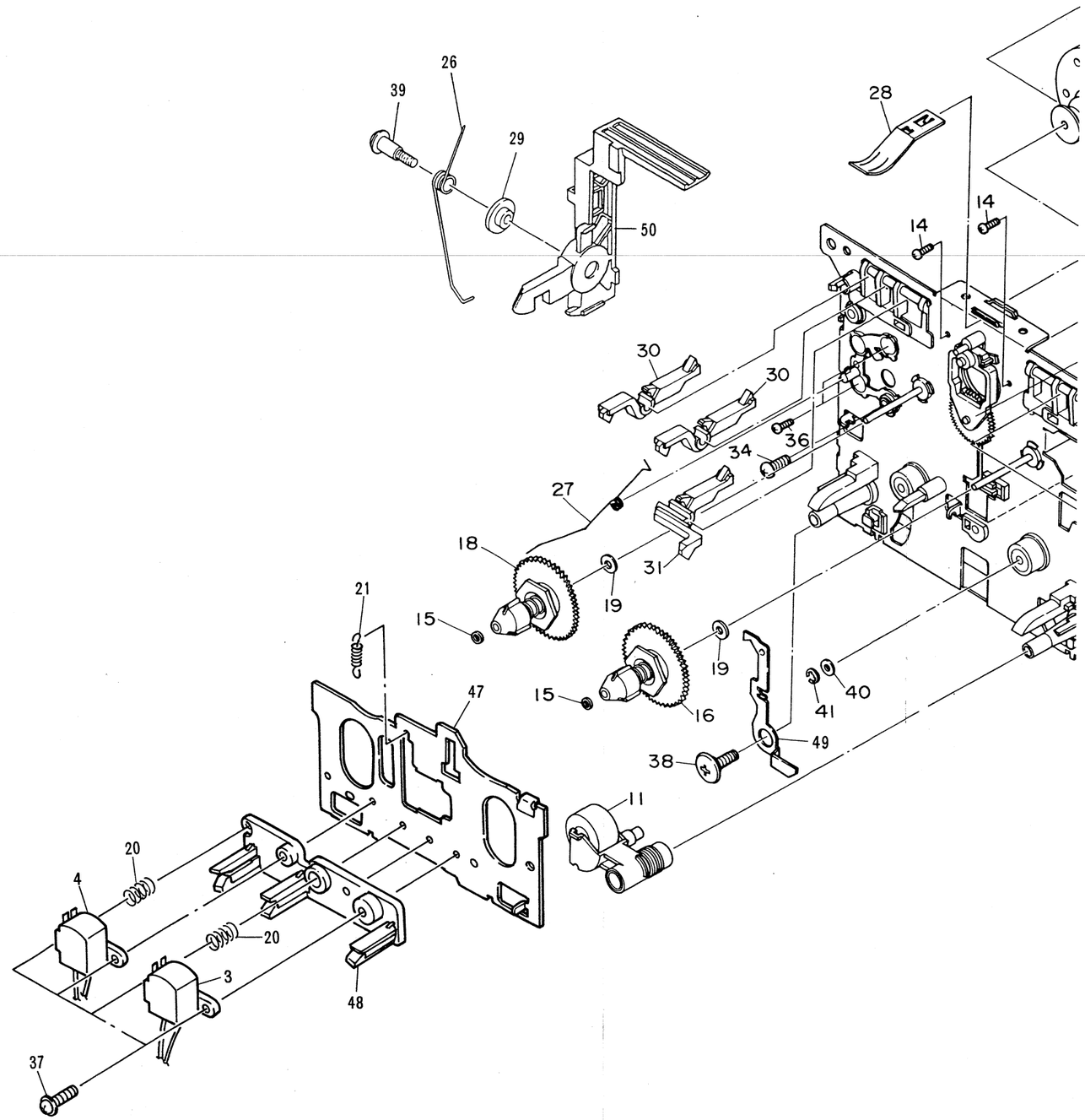
Mark	No.	Description	Part No.
	101	Main unit	
	102	Headphone unit	
	103	Timer SW unit	
	104	Power SW unit	
	105	Transformer 1 unit	
	106	Transformer 2 unit	
	107	Display unit	
	108	Mechanism unit	
	109	PCB spacer	
	110	Regulator IC unit	
	111	.....	
	112	Mechanism mount plate (U) (For Mechanism unit)	
	113	Mechanism mount plate (D)	
	114	Rear panel	
	115	Front panel	
	116	Main chassis	
	117	Name plate	
	118	FL holder	
	119	MIC unit	
	120	Capacitor sleeve A	
	121	MIC bracket	
	122	Headphone bracket	
	123	Wire	
	124	Connector assembly 5P	

2.4 MECHANISM UNIT (For CT–339/HEM type)

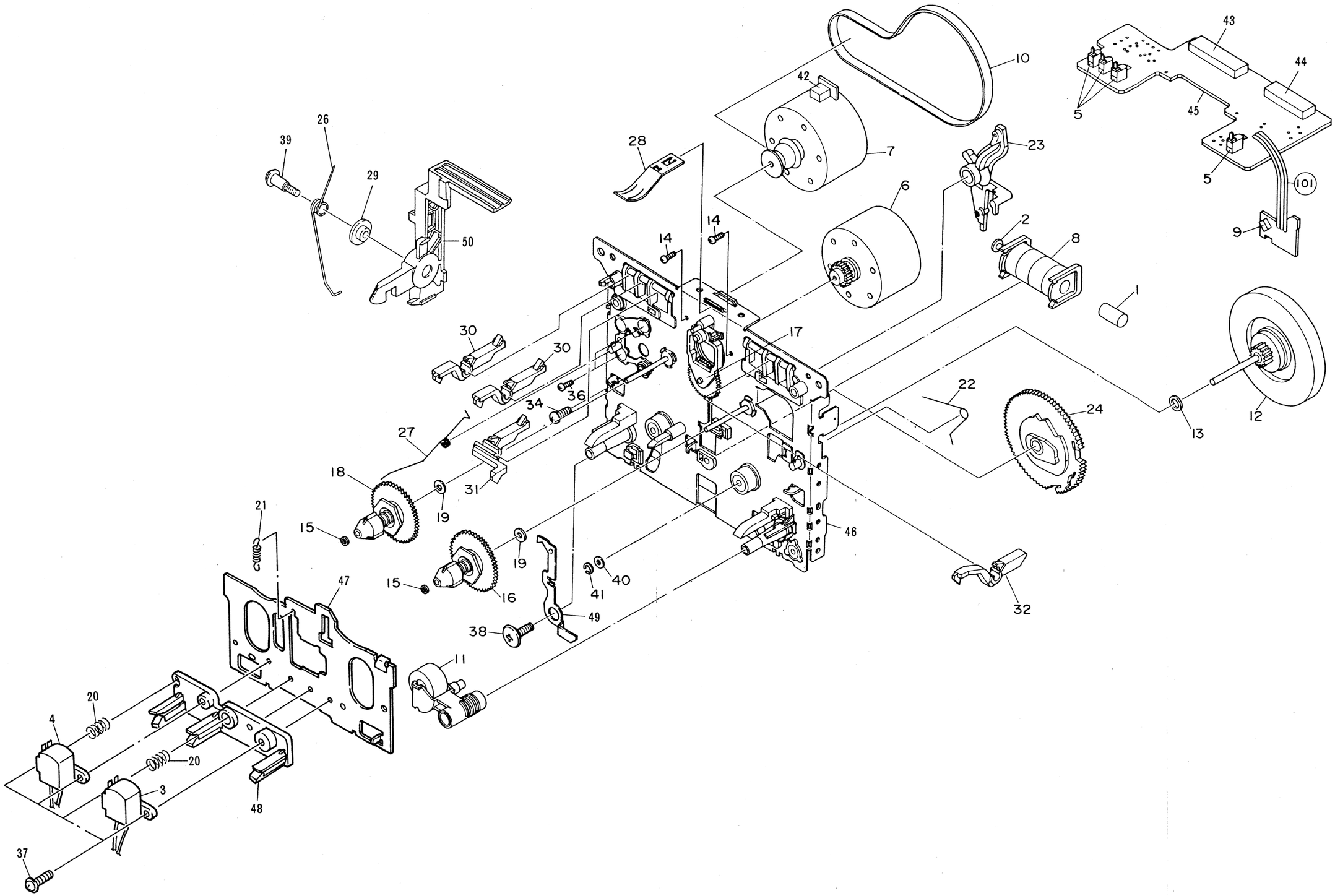
Parts List

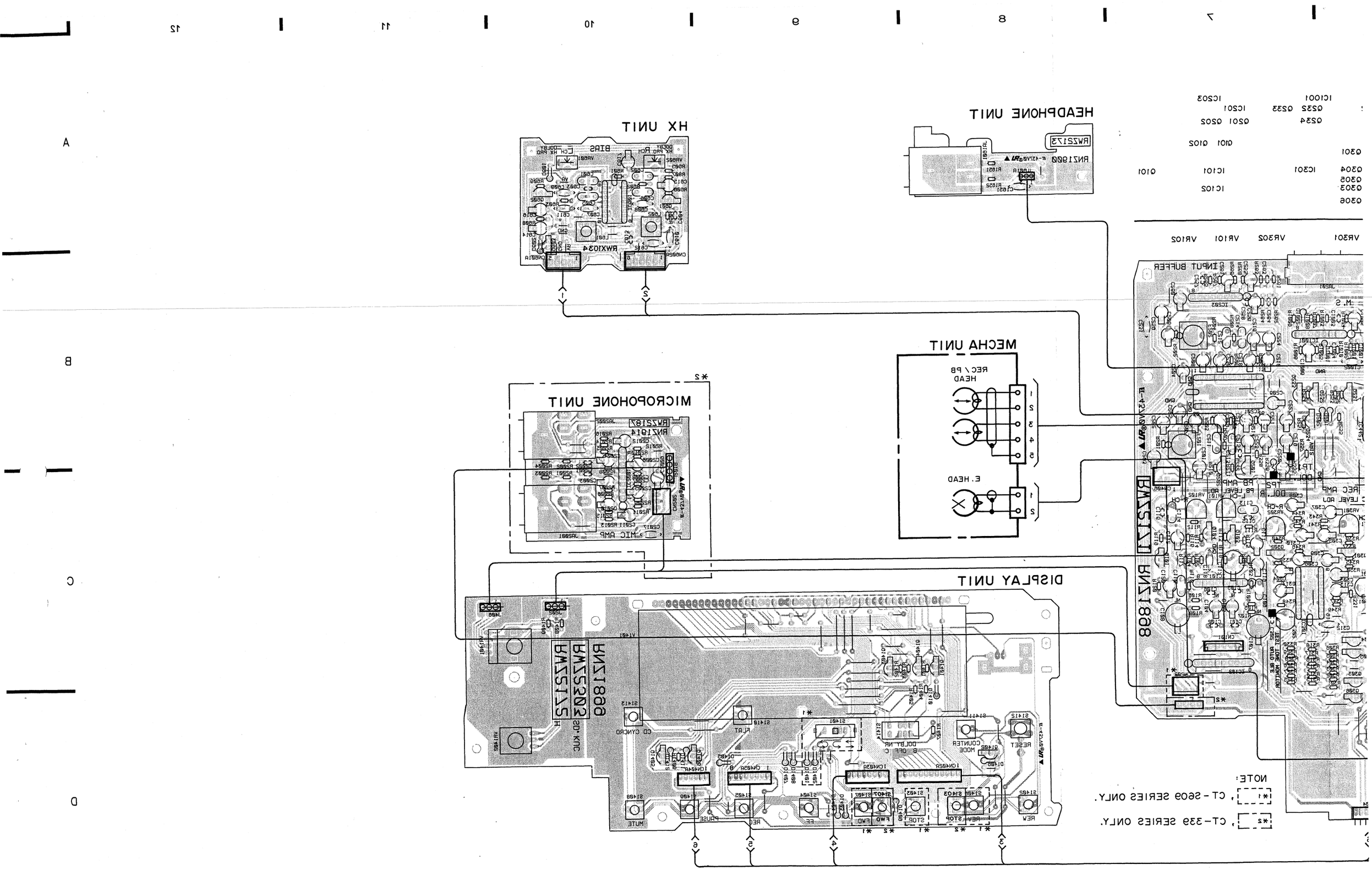
Mark	No.	Description	Part No.
	1	Fixed core	RLA1130
	2	Planger	RLA1132
	3	Head (R/P)	RPB1039
	4	Head (E)	RPB1040
	5	Push SW	RSG1018
	6	MTR reel BLK	RXM1029
	7	MTR main BLK	RXM1032
	8	Solenoid BLK	RXP1010
	9	Photo – transistor	SPI33534FG
	10	Main belt	REB1163
	11	Pinch roller ass'y	RXA1183
	12	F/W ass'y	RXA1294
	13	Washer	WA26D045D025
	14	Pan 2.6 × 6.4 ZN	RBA1076
	15	Washer	RBF – 057
	16	Reel base BLK	RXA1184
	17	Idle BLK	RXA1248
	18	Reel base BLK	RXC – 040
	19	Washer	RBF1038
	20	Azimuth SP	RBH1076
	21	Head base SP	RBL1003
	22	Slide SP	RBH1239
	23	Play arm	RNK1525
	24	Cam gear (3R)	RNK1672
	25	·····	
	26	Lever SP (L) (EJECT)	RBH1262
	27	Eject prevention spring (L)	RBH1234
	28	Spring (CASSETTE)	RBK1030
	29	Lever (Collar B)	RLA1146
	30	Detector lever (REC)	RNK1527
	31	Metal detector lever (L)	RNK1529
	32	Detector lever (P)	RNK1543
	33	·····	
	34	Screw	PBZ30P080FMC
	35	·····	
	36	Screw	PMZ26P050FMC
	37	F lock screw	RBA1031
	38	Screw (7.7)	RBA1048
	39	Screw	RBA1078
	40	Washer	WA26D047D050
	41	Washer	YE15FUC
	42	Holder cushion (L)	RED1027
	43	Connector (8P)	RKP1327
	44	Connector (6P)	RKP1359
	45	P.C. board	RNP1279
	46	Chassis base BLK	RXA1345
	47	Head base	RNE1390
	48	Head spacer	RNK1631
	49	Eject prevention arm (L)	RNE1199
	50	Lever (L) (EJECT)	RNK1593
	101	Jumper (3P)	

Mechanism Unit (For CT–339/HEM type)



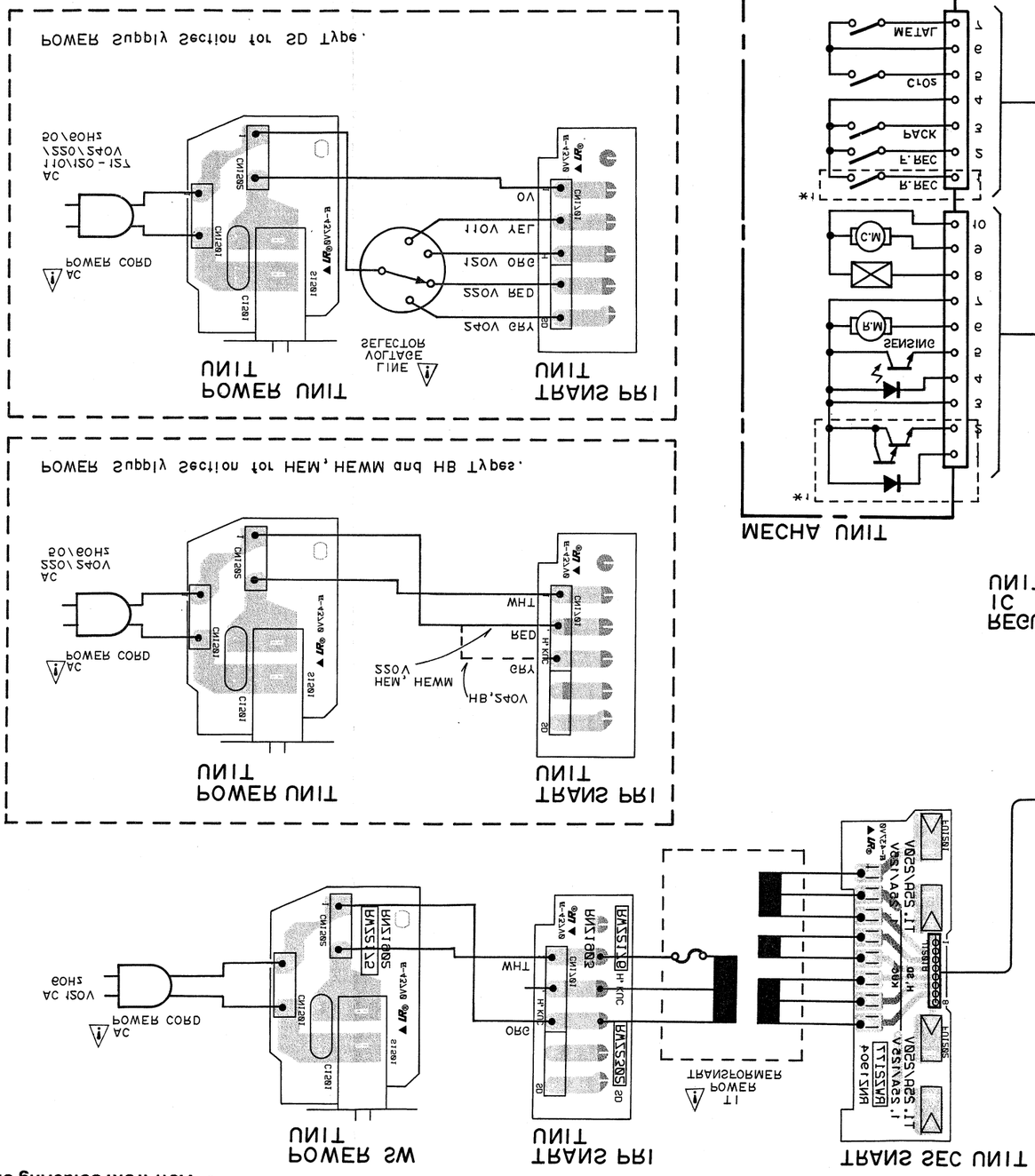
Mechanism Unit (For CT–339/HEM type)



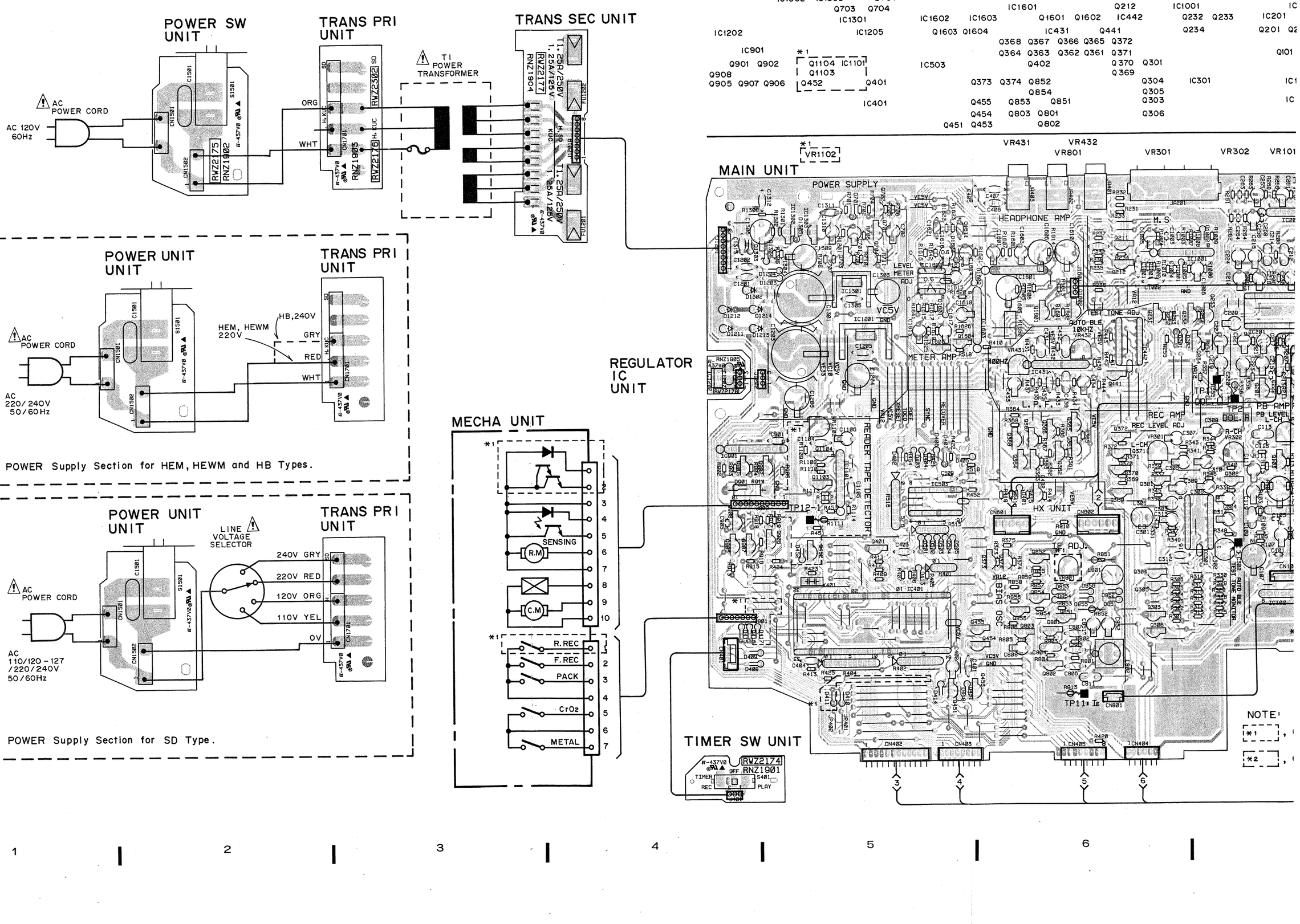

HX UNIT
HEADPHONE UNIT
MECHA UNIT
REC / PB HEAD
E. HEAD
MICROPHONE UNIT
DISPLAY UNIT
INPUT BUFFER
REC AMP
PB AMP
NOTE:
*1 : CT-S609 SERIES ONLY.
*2 : CT-339 SERIES ONLY.

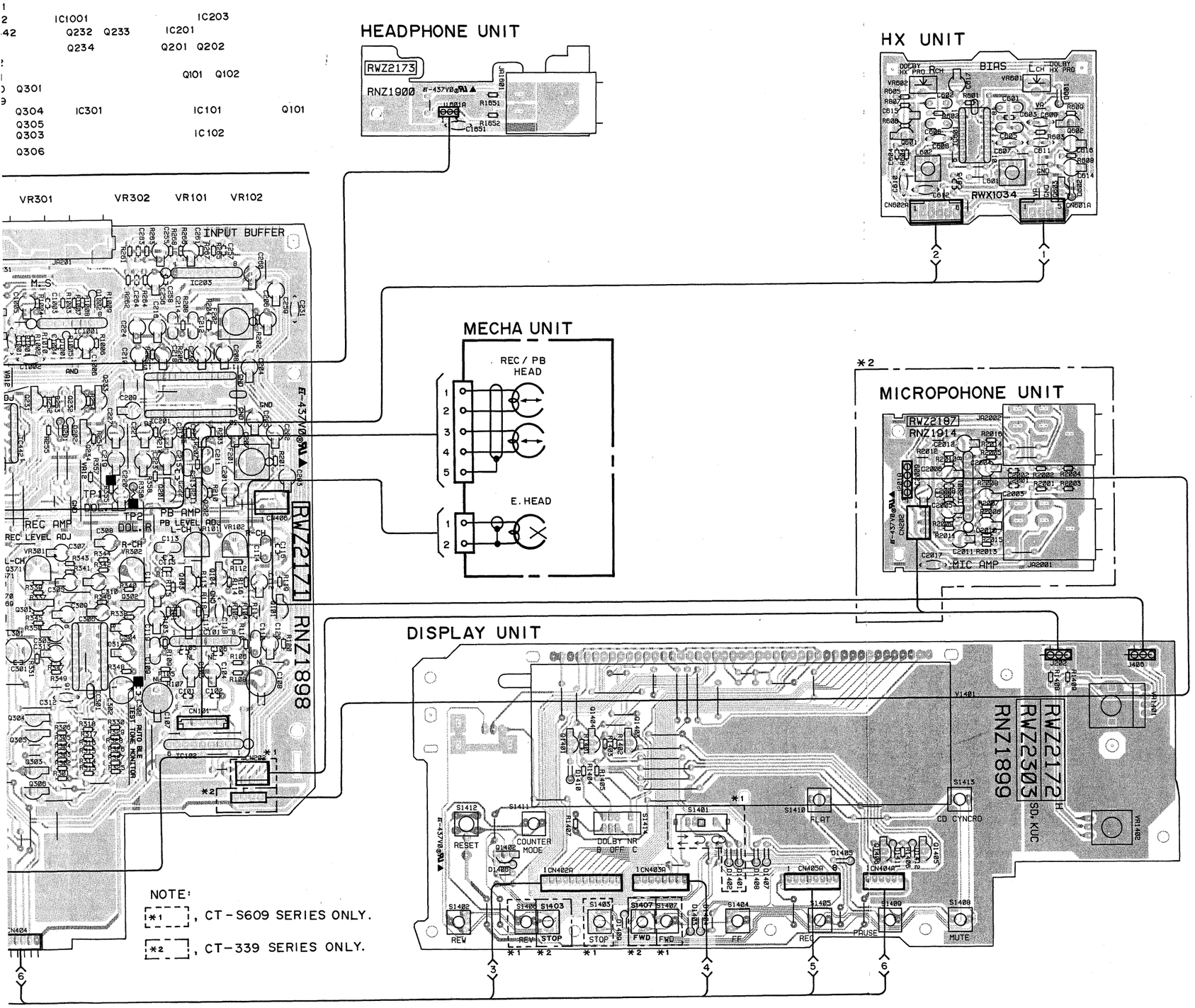
3. P.C. BOARDS CONNECTION DIAGRAM

• View from soldering side



3. P.C. BOARDS CONNECTION DIAGRAM





P.C.B. pattern diagram indication	Corresponding part symbol	Part name
		Transistor
		FET
		Diode
		Zenner diode
		LED
		Varactor
		Tact switch
		Inductor
		Coil
		Transformer
		Filter
		Ceramic capacitor
		Mylar capacitor
		Styrol capacitor
		Electrolytic capacitor (Non polarized)
		Electrolytic capacitor (Noiseless)
		Electrolytic capacitor (Polarized)
		Electrolytic capacitor (Polarized)
		Power capacitor
		Semi-fixed resistor
		Resistor array
		Resistor
		Resonator
		Thermistor

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with ▭ shows negative terminal.
4. The diode marked with O shows cathode side.
5. The transistor terminal marked with ▭ shows emitter.

4. SCHEMATIC DIAGRAM

*1

	CT-S609R	CT-339
C101 C102	1000P	680P

*2

	CT-S609R	CT-339
R301	47K	100K
R303	110K	120K
R304	30K	39K
R305	22K	43K
R306	56K	91K
R313	130K	200K
R314	82K	82K
R315	120K	130K
R316	33K	56K
R317	27K	56K
R318	82K	220K
R325	100K	110K
R327	68K	91K
R328	39K	75K
R329	36K	75K
R330	43K	110K
R341 R342	3.9K	3K
R343 R344	4.7K	8.2K
C307 C308	0.47/50	1/50
R302	110K	91K
R326	91K	82K

*3

	CT-S609R	CT-339
L802	RTD1022	RTD1054
C808	10/50	10/50
R801 R802	33K	47K
R803 R804	5.6	4.7
R851	RCN1026 (160)	240
R852	RCN1020 (120)	68
Q801 | Q803	2SC3243	2SD1302

MECHA UNIT (2/3)
REC/PB HEAD
RPB1030
RKP1402 (1/2)

MECHA UNIT (3/3)
E.HEAD
RPB1030
RKP1402 (2/2)

PB/REC SELECT
IC102
BA3126N

PB AMP
PB LEVEL Adj.
IC101 (1/2) M5220L
IC101 (2/2)

IC201
CXA1330S-P
DOLBY B/C NR

400Hz LEVEL ADJ.
10kHz LEVEL ADJ.
IC431 (1/2) M5218AL
IC431 (2/2)
10kHz Buffer AMP

IC442
TC4066BP

REC EQ
REC LEVEL Adj.
IC301 CXA1198AP

BIAS OSC
f:105KHZ
L802

CT-S609R ONLY
OTHERS

IC401 PD4313A
SYSTEM CONTROL

BLE INITIAL CONDITION

HX UNIT
HX Pro
UPC1297CA
IC601
BIAS Adj

CD SYNCHRO
SR REMOCON

REGULATOR
SYSTEM RESET

SD
AC110/120~127/220/240V
50/60HZ
POWER SW UNIT
AC POWER CORD
RSB1002
T-1 POWER TRANSFORMER RTT1169

KUC
AC120V 60HZ
POWER SW UNIT
AC POWER CORD
POWER TRANSFORMER PRI UNIT
T-1 POWER TRANSFORMER RTT1170
POWER TRANSFORMER SEC UNIT

HEM, HEWM, HB
AC220/240V
50/60HZ
POWER SW UNIT
AC POWER CORD
POWER TRANSFORMER PRI UNIT
T-1 POWER TRANSFORMER RTT1137

FU1, FU2:
KUC:REK-075
1.25A/125V
HEM, HEWM, HB, SD
:REK-101
T1.25A/250V

Line Voltage Selection

Line voltage can be changed with the following steps.
1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the connection of the power transformer primary taps.
4. Stick the line voltage label on the rear panel.

Port NO.	Description
AXX-193	220V label
AXX-192	240V label

LINE IN/OUT

JA201 (3/4) IN-L

JA201 (4/4) IN-R

RKB-020-

JA201 (1/4) OUT-L

JA201 (2/4) OUT-R

SHG

SG

SC

M5218AL

IC431 (1/2)

400Hz L.P.F. AMP

BLE TEST TONE 400Hz 7.4dBV

400Hz LEVEL ADJ.

10kHz LEVEL ADJ.

IC431 (2/2)

10kHz Buffer AMP

BLE TEST TONE 10kHz 6VP-P

IC442

TC4066BP

DTC114ES

VC5V

VE5V

GNDA

GNDC

GNDM

VA12

MA

MT

IC401

PD4313A

SYSTEM CONTROL

VSS1014

X401

KEY0

KEY1

KEY2

SONQ

POWER OFF

REMOT

LMETER

RMETER

REC LEVEL ADJ

SENS

RMR

DEC

TO CD

EQ ADJ

BIAS ADJ

SOLA

SOLB

400/10K

BLEON

FSELECT

RECOVER

BIAS

XL INEMUT

XRESET

CPM

RML

RMJUTE

RMP

SI

SO

SCK

CD SYNCHRO

RKN1014 JA401

RKN1004 JA402 JA403

SR REMOCON

RBMOT

FROMCD

SYNC

TOCD

BIAS

METER AMP

IC1603 (1/2)

IC1602 (1/2)

IC1603 (2/2)

IC1602 (2/2)

BA15218

BA15218N

M5235L

LMETER

RECOVER

RMETER

M.S

IC1001 (1/2)

IC1001 (2/2)

R.M CONTROL

IC901

BA6218

SENSING

CPM DRIVE

SOL DRIVE

2SC3246

2SD1858X

IC503

TC4050BP

REG. IC UNIT

TA7812S IC1202

REGULATOR

NJM7812FA IC1201

NJM7912FA IC1301

NJM79L05A IC1303

SYSTEM RESET

J1202A

J1202

J802

J801

C.M

R.M

SOL

SLED MOT

LOAD

PACK

REC

MECHA UNIT (1/3)

TAPE END DETECTOR

IC1101 (1/2)

IC1101 (2/2)

H.PHONE AMP

IC1601 (1/2)

M5218AL

IC1601 (2/2)

LINE MUTE

H.PHONE UNIT

VR MAX -21.5dBV 84mV

J1601 J1601A

RKN1002 JA1601

CT-339 ONLY

INPUT BUFFER

IC203 (1/2)

IC203 (2/2)

CT-S609R ONLY

CN202

MAIN UNIT

J201 J201A

CN202

DISPLY UNIT

FL1401

CN402

BTMK12P-1R

BTMK12S-1S

FL DRIVER

CN402A

CN404

BTMK06P-1R

CN404A

BTMK06S-1S

S1414

RSH1001

DOLBY SW

CN406

J406

INPUT VR

VR1401 (1/2)

VR1401 (2/2)

RCV1050

VR1402

RCS1014

BALANCE VR

J202

CN405A

BTMK08S-1S

BTMK08P-1R

CN405

AUTO BLE TEST MODE

MAIN UNIT

NOTE: If the parts are not identified in the
the followings are used.

1SS254

NPN 2SC3311A

PNP 2SA1309A

PLAYBACK SIG

RECORDING SI

ection

be changed with the following steps.
AC power cord.
cover.
nection of the power transformer primary taps.
voltage label on the rear panel.

cription

V label
V label

MOTHER UNIT

MECHA UNIT

LINE IN/OUT

H.PHONE AMP

H.PHONE UNIT

LINE MUTE

INPUT BUFFER

CT-339 ONLY

CT-S609R ONLY

MIC AMP UNIT

MAIN UNIT

MIC AMP

M.S

METER AMP

DISPLY UNIT

FL1401 RAW1073 HEM, HEWM, HB
RAW1081 SD, KUC

FL DRIVER

REVERSE MODE

DOLBY SW

INPUT VR

BALANCE VR

AUTO BLE TEST MODE

TIMER SW UNIT

MT

TC4050BP

IC503

R.M CONTROL

IC901 BA6218

CPM DRIVE

SOL DRIVE

MECHA UNIT (1/3)

TAPE END DETECTOR

MOTHER UNIT

MECHA UNIT

NOTE: If the parts are not identified in the the diagram, the followings are used.

1SS254

NPN 2SC3311A

PNP 2SA1309A

PLAYBACK SIGNAL

RECORDING SIGNAL

1. RESISTORS :
Indicated in Ω, 1/6W, ± 5% tolerance unless otherwise noted
k : kΩ, M : MΩ, (F) : ± 1%, (G) : ± 2%, (K) : ± 10%, (M) : ± 20% tolerance.

2. CAPACITORS :
Indicated in capacity (μF) / voltage (V) unless otherwise noted p : pF.
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE CURRENT :
: DC voltage (V) at no input signal.
➡mA : DC current at no input signal.

4. OTHERS :
➡ : Signal route.
⊘ : Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

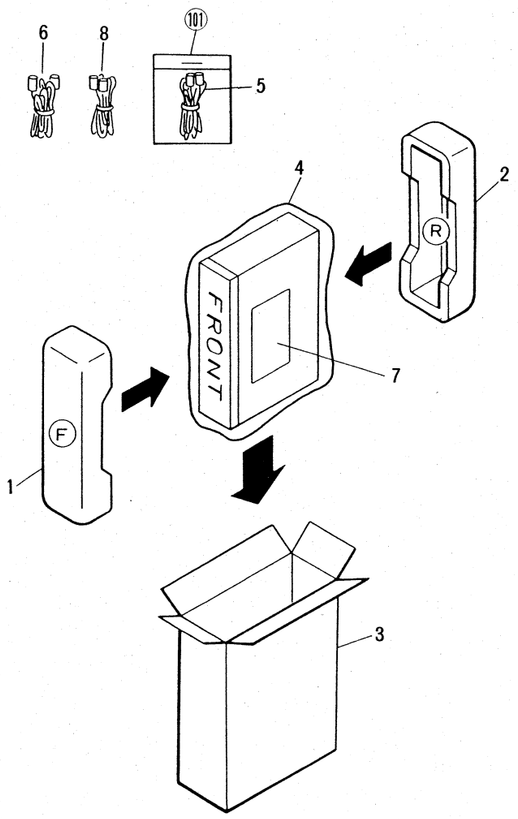
5. SWITCHES (Underline indicates switch position)
DISPLAY UNIT
S1402 : REW
S1403 : STOP
S1404 : FF
S1405 : REC
S1407 : FWD
S1408 : MUTE
S1409 : PAUSE
S1410 : FLAT
S1411 : CUNTER MODE
S1412 : CUNTER RESET
S1413 : CD SYNCRO
S1414 : DOLBY NR B – $\overline{\text{OFF}}$ – C
(CT – S609 SERIES ONLY)
S1401 : REV MODE ⇨–⇄–⇄
S1406 : REV
TIMER SW UNIT
S401 : T.REC – $\overline{\text{OFF}}$ – T.PLAY/REPEAT
POWER SW UNIT
S1501 : ON – $\overline{\text{OFF}}$

CT-S609R

5. PACKING

Parts List

Mark	No.	Part No.	Description
	1	RHA1006	Pad (A)
	2	RHA1007	Pad (B)
	3	RHG1290	Packing case
	4	RHX – 034	Sheet
	5	RDE – 010	Connection cord
	6	RDE1030	Control cord
	7	RRB1092	Operating instructions
	8	PDE – 319	Connection cord (Mini)
	101		Connection cord assembly



6. P.C.B's PARTS LIST

6.1 CT–S609R

NOTES:
- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may
- The ⚠ mark found on some component parts indicates the importance of t to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as sh

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560
560 Ω → 56×10^1 → 561 .....
47k Ω → 47×10^3 → 473 .....
0.5 Ω → 0R5 .....
1 Ω → 010 .....

Ex.2 When there are 3 effective digits (such as in high precision metal film
5.62k Ω → 562×10^1 → 5621 .....

Mark	No.	Description	Part No.	Ma
HX UNIT				
SEMICONDUCTORS				
		IC601 DOLBY HX PRO IC	UPC1297CA	
		Q601, 602 TRANSISTOR	2SA1309A	⚠
		Q603 TRANSISTOR	DTC124ES	⚠
		D601, 602 DIODE	1SS254	⚠
COILS/TRANSFORMERS				⚠
		L601, 602 COIL	RTD1046	
CAPACITORS				
		C601, 602 AUDIO FILM CAPACITOR	CFTXA103J50	
		C603, 604 AXIAL CAPACITOR	CKPUYB821K50	
		C605, 606 AUDIO FILM CAPACITOR	CFTXA223J50	
		C607, 608 CERAMIC CAPACITOR	CGCYX473K25	
		C609, 610 CERAMIC CAPACITOR	CCCSL101K500	
		C611, 612 CERAMIC CAPACITOR	RCG1005	
		C613 AXIAL CAPACITOR	CKPUYB101K50	
		C614 ELECTR. CAPACITOR	CEASR10M50	
		C615 ELECTR. CAPACITOR	CEAS100M50	
		C616 ELECTR. CAPACITOR	CEAS4R7M50	
		C617 ELECTR. CAPACITOR	CEAS100M50	
RESISTORS				
		R601-609 CARBONFILM RESISTOR	RD1/6PM□□□J	
		VR601, 602 VR	VRTB6HS223	
MAIN UNIT				
SEMICONDUCTORS				
		IC101 OP-AMP IC	M5220L	
		IC102 IC	BA3126N	
		IC201 DOLBY B/C IC	CXA1330S	
		IC203 OP-AMP, IC	M5218AL	
		IC301 REC EQUALIZER IC	CXA1198AP	
		IC401 MCU	PD4313A	
		IC431 OP-AMP, IC	M5218AL	
		IC442 LOGIC IC	TC4066BP	
		IC503 CMOS LOGIC IC	TC4050BP	

1. RESISTORS :
Indicated in Ω, 1/6W, ± 5
k ; kΩ, M ; MΩ, (F) ; ± 1 %, (
tolerance.

2. CAPACITORS :
Indicated in capacity (μF)/vo
Indication without voltage is

3. VOLTAGE CURRENT :
□ : DC voltage (V) at no
➡mA ; DC current at no inp

4. OTHERS :
➡ ; Signal route.
⊘ ; Adjusting point.
The ⚠ mark found on so
importance of the safety f
replacing, be sure to use pa
※ marked capacitors and res

This is the basic schematic
vary due to improvements i

6. P.C.B's PARTS LIST

6.1 CT-S609R

NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%)

560 Ω → 56 × 10^1 → 561 ····· RD1/4PS 5 6 1 J
47k Ω → 47 × 10^3 → 473 ····· RD1/4PS 4 7 3 J
0.5 Ω → 0R5 ····· RN2H 0 R 5 K
1 Ω → 010 ····· RS1P 0 1 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10^1 → 5621 ····· RN1/4SR 5 6 2 1 F

Mark	No.	Description	Part No.
HX UNIT			
SEMICONDUCTORS			
	IC601	DOLBY HX PRO IC	UPC1297CA
	Q601, 602	TRANSISTOR	2SA1309A
	Q603	TRANSISTOR	DTC124ES
	D601, 602	DIODE	1SS254
COILS/TRANSFORMERS			
	L601, 602	COIL	RTD1046
CAPACITORS			
	C601, 602	AUDIO FILM CAPACITOR	CFTXA103J50
	C603, 604	AXIAL CAPACITOR	CKPUYB821K50
	C605, 606	AUDIO FILM CAPACITOR	CFTXA223J50
	C607, 608	CERAMIC CAPACITOR	CGCYX473K25
	C609, 610	CERAMIC CAPACITOR	CCCSL101K500
	C611, 612	CERAMIC CAPACITOR	RCG1005
	C613	AXIAL CAPACITOR	CKPUYB101K50
	C614	ELECTR. CAPACITOR	CEASR10M50
	C615	ELECTR. CAPACITOR	CEAS100M50
	C616	ELECTR. CAPACITOR	CEAS4R7M50
	C617	ELECTR. CAPACITOR	CEAS100M50
RESISTORS			
	R601-609	CARBONFILM RESISTOR	RD1/6PM□□□J
	VR601, 602	VR	VRTB6HS223
MAIN UNIT			
SEMICONDUCTORS			
	IC101	OP-AMP IC	M5220L
	IC102	IC	BA3126N
	IC201	DOLBY B/C IC	CXA1330S
	IC203	OP-AMP, IC	M5218AL
	IC301	REC EQUALIZER IC	CXA1198AP
	IC401	MCU	PD4313A
	IC431	OP-AMP, IC	M5218AL
	IC442	LOGIC IC	TC4066BP
	IC503	CMOS LOGIC IC	TC4050BP
	IC901	IC	BA6218
	IC1001	IC	BA15218N
	IC1101	DUAL-COMPARATOR IC	M5233L
⚠	IC1201	REGULATOR IC	NJM7812FA
⚠	IC1301	REGULATOR IC	NJM78M05FA
⚠	IC1302	REGULATOR IC	NJM79M12FA
⚠	IC1303	REGULATOR IC	NJM79L05A
	IC1601	OP-AMP, IC	M5218AL
	IC1602	OP-AMP, IC	BA15218
	IC1603	DUAL-COMPARATOR IC	M5233L
	Q101	TRANSISTOR	2SC3311A
	Q103, 104	TRANSISTOR	DTC114ES
	Q201, 202	TRANSISTOR	2SD1302
	Q211, 212	TRANSISTOR	2SD1302
	Q231	DIGITAL TRANSISTOR	DTA114ES
	Q232-234	TRANSISTOR	DTC114ES
	Q301, 302	TRANSISTOR	2SC3311A
	Q303-306	TRANSISTOR	DTC114ES
	Q361-374	TRANSISTOR	DTC114ES
	Q401	TRANSISTOR	DTC114ES
	Q402	TRANSISTOR	2SA1309A
	Q441	TRANSISTOR	DTC114ES
	Q451, 452	TRANSISTOR	2SA1309A
	Q453-455	TRANSISTOR	DTC114ES
	Q701	TRANSISTOR	2SA1309A
	Q702, 703	TRANSISTOR	2SC3311A
	Q704	TRANSISTOR	2SA1309A
	Q801-803	TRANSISTOR	2SC3243
	Q851, 852	TRANSISTOR	2SB1238X
	Q853, 854	TRANSISTOR	2SC3311A
	Q901	TRANSISTOR	2SC3246
	Q902	TRANSISTOR	2SC3311A
	Q905-907	TRANSISTOR	2SD1858X
	Q908	TRANSISTOR	2SC3311A
	Q1103, 1104	TRANSISTOR	2SC3311A
	Q1601, 1602	TRANSISTOR	2SD1302
	D851	DIODE	1SS254
	D852	DIODE	1SS252
	D853-856	DIODE	1SS254
	D901	DIODE	1SS252
	D1001, 1002	DIODE	1SS254
	D1203, 1204	DIODE	1SS254
⚠	D1211-1214	DIODE	1SR35-100AVL
⚠	D1302	DIODE	1SR35-100AVL
⚠	D1303	DIODE	1SS252
⚠	D1304	ZENER DIODE	MTZJ20A
⚠	D1305	ZENER DIODE	MTZJ9.1A
	D1601-1603	DIODE	1SS254
COILS/TRANSFORMERS			
	L301, 302	COIL	RTF1102
	L801	RADIAL INDUCTOR	LRA121K
	L802	COIL	RTD1022
	F201, 202	FILTER	RTF1062
CAPACITORS			
	C101, 102	CERAMIC CAPACITOR	CKPUYB102K50
	C103, 104	ELECTR. CAPACITOR	CEANL100M16
	C105, 106	AXIAL CAPACITOR	CKPUYB101K50
	C107, 108	ELECTR. CAPACITOR	CEANL470M10
	C109, 110	AUDIO FILM CAPACITOR	CFTXA223J50
	C111, 112	ELECTR. CAPACITOR	CEAS100M50
	C113, 114	AUDIO FILM CAPACITOR	CFTXA223J50
	C115, 116	CERAMIC CAPACITOR	CKPUYB102K50
	C117	ELECTR. CAPACITOR	CEAS101M25
	C118	CERAMIC CAPACITOR	CKCYF103Z50
	C119	ELECTR. CAPACITOR	CEAS470M16
	C120	ELECTR. CAPACITOR	CEAS010M50
	C201-204	ELECTR. CAPACITOR	CEAS010M50
	C205-208	ELECTR. CAPACITOR	CEAS100M50
	C209, 210	ELECTR. CAPACITOR	CEAS4R7M50
	C211-214	AUDIO FILM CAPACITOR	CFTXA222J50
	C215, 216	ELECTR. CAPACITOR	CEASR22M50
	C217, 218	ELECTR. CAPACITOR	CEASR33M50
	C219, 220	ELECTR. CAPACITOR	CEAS330M16
	C221	ELECTR. CAPACITOR	CEAS100M50
	C222	CERAMIC CAPACITOR	CKPUYY103M16
	C223, 224	ELECTR. CAPACITOR	CEASR33M50
	C227	ELECTR. CAPACITOR	CEAS101M25
	C229, 230	ELECTR. CAPACITOR	CEAS100M50
	C231, 232	CERAMIC CAPACITOR	CKCYF473Z50
	C255, 256	ELECTR. CAPACITOR	CEAS100M50

be longer than usual or they may be unavailable.
safety factor of the part. Therefore, when replacing, be sure

wn in the following examples.
ohm and 47k ohm (tolerance is shown by J=5%, and K=10%)
RD1/4PS 5 6 1 J
RD1/4PS 4 7 3 J
RN2H 0 R 5 K
RS1P 0 1 0 K
esistors).
RN1/4SR 5 6 2 1 F

k	No.	Description	Part No.
	IC901	IC	BA6218
	IC1001	IC	BA15218N
	IC1101	DUAL-COMPARATOR IC	M5233L
	IC1201	REGULATOR IC	NJM7812FA
	IC1301	REGULATOR IC	NJM78M05FA
	IC1302	REGULATOR IC	NJM79M12FA
	IC1303	REGULATOR IC	NJM79L05A
	IC1601	OP-AMP, IC	M5218AL
	IC1602	OP-AMP, IC	BA15218
	IC1603	DUAL-COMPARATOR IC	M5233L
	Q101	TRANSISTOR	2SC3311A
	Q103, 104	TRANSISTOR	DTC114ES
	Q201, 202	TRANSISTOR	2SD1302
	Q211, 212	TRANSISTOR	2SD1302
	Q231	DIGITAL TRANSISTOR	DTA114ES
	Q232-234	TRANSISTOR	DTC114ES
	Q301, 302	TRANSISTOR	2SC3311A
	Q303-306	TRANSISTOR	DTC114ES
	Q361-374	TRANSISTOR	DTC114ES
	Q401	TRANSISTOR	DTC114ES
	Q402	TRANSISTOR	2SA1309A
	Q441	TRANSISTOR	DTC114ES
	Q451, 452	TRANSISTOR	2SA1309A
	Q453-455	TRANSISTOR	DTC114ES
	Q701	TRANSISTOR	2SA1309A
	Q702, 703	TRANSISTOR	2SC3311A
	Q704	TRANSISTOR	2SA1309A
	Q801-803	TRANSISTOR	2SC3243
	Q851, 852	TRANSISTOR	2SB1238X
	Q853, 854	TRANSISTOR	2SC3311A
	Q901	TRANSISTOR	2SC3246
	Q902	TRANSISTOR	2SC3311A
	Q905-907	TRANSISTOR	2SD1858X
	Q908	TRANSISTOR	2SC3311A
	Q1103, 1104	TRANSISTOR	2SC3311A
	Q1601, 1602	TRANSISTOR	2SD1302
	Q1603, 1604	DIGITAL TRANSISTOR	DTC114TS
	D201, 202	DIODE	1SS254
	D401	ZENER DIODE	MTZJ4.3B
	D402-411	DIODE	1SS254
	D413	DIODE	1SS254
	D414	ZENER DIODE	MTZJ9.1A
	D415-418	DIODE	1SS254
	D451, 452	DIODE	1SS254
	D501-505	DIODE	1SS254
	D701	DIODE	1SS254
	D851	DIODE	1SS254
	D852	DIODE	1SS252
	D853-856	DIODE	1SS254
	D901	DIODE	1SS252
	D1001, 1002	DIODE	1SS254
	D1203, 1204	DIODE	1SS254
⚠	D1211-1214	DIODE	1SR35-100AVL
⚠	D1302	DIODE	1SR35-100AVL
⚠	D1303	DIODE	1SS252
⚠	D1304	ZENER DIODE	MTZJ20A
⚠	D1305	ZENER DIODE	MTZJ9.1A
	D1601-1603	DIODE	1SS254

COILS/TRANSFORMERS

	L301, 302	COIL	RTF1102
	L801	RADIAL INDUCTOR	LRA121K
	L802	COIL	RTD1022
	F201, 202	FILTER	RTF1062

CAPACITORS

	C101, 102	CERAMIC CAPACITOR	CKPUYB102K50
	C103, 104	ELECTR. CAPACITOR	CEANL100M16
	C105, 106	AXIAL CAPACITOR	CKPUYB101K50
	C107, 108	ELECTR. CAPACITOR	CEANL470M10
	C109, 110	AUDIO FILM CAPACITOR	CFTXA223J50
	C111, 112	ELECTR. CAPACITOR	CEAS100M50
	C113, 114	AUDIO FILM CAPACITOR	CFTXA223J50
	C115, 116	CERAMIC CAPACITOR	CKPUYB102K50
	C117	ELECTR. CAPACITOR	CEAS101M25
	C118	CERAMIC CAPACITOR	CKCYF103Z50
	C119	ELECTR. CAPACITOR	CEAS470M16
	C120	ELECTR. CAPACITOR	CEAS010M50
	C201-204	ELECTR. CAPACITOR	CEAS010M50
	C205-208	ELECTR. CAPACITOR	CEAS100M50
	C209, 210	ELECTR. CAPACITOR	CEAS4R7M50
	C211-214	AUDIO FILM CAPACITOR	CFTXA222J50
	C215, 216	ELECTR. CAPACITOR	CEASR22M50
	C217, 218	ELECTR. CAPACITOR	CEASR33M50
	C219, 220	ELECTR. CAPACITOR	CEAS330M16
	C221	ELECTR. CAPACITOR	CEAS100M50
	C222	CERAMIC CAPACITOR	CKPUYY103M16
	C223, 224	ELECTR. CAPACITOR	CEASR33M50
	C227	ELECTR. CAPACITOR	CEAS101M25
	C229, 230	ELECTR. CAPACITOR	CEAS100M50
	C231, 232	CERAMIC CAPACITOR	CKCYF473Z50
	C255, 256	ELECTR. CAPACITOR	CEAS100M50
	C257, 258	AXIAL CAPACITOR	CKPUYB101K50
	C259, 260	ELECTR. CAPACITOR	CEAS100M50
	C261	ELECTR. CAPACITOR	CEAS470M16
	C263, 264	AXIAL CAPACITOR	CKPUYB101K50
	C301, 302	AXIAL CAPACITOR	CKPUYB221K50
	C303, 304	ELECTR. CAPACITOR	CEAS4R7M50
	C305, 306	ELECTR. CAPACITOR	CEAS101M25
	C307, 308	ELECTR. CAPACITOR	CEASR47M50
	C309	ELECTR. CAPACITOR	CEAS101M25
	C310	ELECTR. CAPACITOR	CEAS4R7M50
	C312	CERAMIC CAPACITOR	CKCYF473Z50
	C313, 314	ELECTR. CAPACITOR	CEAS4R7M50
	C401	CERAMIC CAPACITOR	CKCYF103Z50
	C402	ELECTR. CAPACITOR	CEAS470M16
	C403-406	CERAMIC CAPACITOR	CKCYF103Z50
	C407	CERAMIC CAPACITOR	CKCYF473Z50
	C431	AUDIO FILM CAPACITOR	CFTXA223J50
	C432	AUDIO FILM CAPACITOR	CFTXA222J50
	C433, 434	ELECTR. CAPACITOR	CEAS010M50
	C435	CERAMIC CAPACITOR	CGCYX104K25
	C436	AUDIO FILM CAPACITOR	CFTXA103J50
	C509	CERAMIC CAPACITOR	CKCYF473Z50
	C701	ELECTR. CAPACITOR	CEAS4R7M50
	C702	ELECTR. CAPACITOR	CEAS470M16
	C804	AUDIO FILM CAPACITOR	CFTXA223J50
	C805	CERAMIC CAPACITOR	CGCYX682K25
	C806, 807	CERAMIC CAPACITOR	CGCYX332K25
	C808	ELECTR. CAPACITOR	CEAS100M50
	C811	CAPACITOR	CQPA682J100
	C851, 852	ELECTR. CAPACITOR	CEAS470M16
	C901	CERAMIC CAPACITOR	CGCYX104K25
	C905	CERAMIC CAPACITOR	CKPUYY103M16
	C1001, 1002	CERAMIC CAPACITOR	CGCYX822K25
	C1003	AXIAL CAPACITOR	CKPUYB101K50
	C1004	AXIAL CAPACITOR	CKPUYB271K50
	C1005	ELECTR. CAPACITOR	CEASR47M50
	C1006	ELECTR. CAPACITOR	CEASR22M50
	C1104, 1105	CERAMIC CAPACITOR	CKCYF103Z50
	C1106	ELECTR. CAPACITOR	CEAS330M35
	C1201, 1202	CERAMIC CAPACITOR	CKCYF473Z50
	C1203	ELECTR. CAPACITOR	CEAS332M35
	C1204	ELECTR. CAPACITOR	CEAS331M16
	C1205	AUDIO FILM CAPACITOR	CFTXA103J50
	C1206	ELECTR. CAPACITOR	CEAS331M16
	C1301	ELECTR. CAPACITOR	CEAS332M16
	C1303	ELECTR. CAPACITOR	CEAS331M16
	C1305	AUDIO FILM CAPACITOR	CFTXA103J50
	C1306	ELECTR. CAPACITOR	CEAS101M50
	C1309	ELECTR. CAPACITOR	CEAS101M50
	C1310	ELECTR. CAPACITOR	CEAS470M16
	C1311-1313	CERAMIC CAPACITOR	CKCYF473Z50
	C1601, 1602	ELECTR. CAPACITOR	CEASR10M50
	C1605, 1606	ELECTR. CAPACITOR	CEAS101M25
	C1610	ELECTR. CAPACITOR	CEAS331M16

Mark	No.	Description	Part No.
	C1611	CERAMIC CAPACITOR	CKCYF473Z50
	C1613	ELECTR. CAPACITOR	CEAS331M16
	C1614	ELECTR. CAPACITOR	CEAS330M35
	C1615, 1616	ELECTR. CAPACITOR	CEAS100M50
	C1617, 1618	ELECTR. CAPACITOR	CEASR47M50
	C1621	CERAMIC CAPACITOR	CKCYF473Z50
RESISTORS			
	R101-120	CARBONFILM RESISTOR	RD1/6PM□□□J
	R201-211	CARBONFILM RESISTOR	RD1/6PM□□□J
	R214	CARBONFILM RESISTOR	RD1/6PM□□□J
	R231-238	CARBONFILM RESISTOR	RD1/6PM□□□J
	R251-255	CARBONFILM RESISTOR	RD1/6PM□□□J
	R261-268	CARBONFILM RESISTOR	RD1/6PM□□□J
	R301-306	CARBONFILM RESISTOR	RD1/6PM□□□J
	R313-318	CARBONFILM RESISTOR	RD1/6PM□□□J
	R325-331	CARBONFILM RESISTOR	RD1/6PM□□□J
	R337-350	CARBONFILM RESISTOR	RD1/6PM□□□J
	R355, 356	CARBONFILM RESISTOR	RCN1024
	R357, 358	CARBONFILM RESISTOR	RD1/6PM□□□J
	R361-375	CARBONFILM RESISTOR	RD1/6PM□□□J
	R401	RESISTOR ARRAY (22K)	RA4T□□□J
	R402	RESISTOR ARRAY(68 K)	RA8T□□□J
	R404	RESISTOR ARRAY(100K)	RA10T□□□J
	R405-407	CARBONFILM RESISTOR	RD1/6PM□□□J
	R409-416	CARBONFILM RESISTOR	RD1/6PM□□□J
	R418	CARBONFILM RESISTOR	RD1/6PM□□□J
	R420-425	CARBONFILM RESISTOR	RD1/6PM□□□J
	R431-435	CARBONFILM RESISTOR	RD1/6PM□□□J
	R437, 438	CARBONFILM RESISTOR	RD1/6PM□□□J
	R443-445	CARBONFILM RESISTOR	RD1/6PM□□□J
	R451-454	CARBONFILM RESISTOR	RD1/6PM□□□J
	R515	RESISTOR ARRAY (22K)	RA5T□□□J
	R516	LADDER RESISTOR	RCX1020
	R518, 519	CARBONFILM RESISTOR	RD1/6PM□□□J
	R701-711	CARBONFILM RESISTOR	RD1/6PM□□□J
	R801-806	CARBONFILM RESISTOR	RD1/6PM□□□J
	R810	CARBONFILM RESISTOR	RD1/6PM□□□J
	R813	CARBONFILM RESISTOR	RD1/2LF□□□J
	R851	CARBONFILM RESISTOR	RCN1026
	R852	CARBONFILM RESISTOR	RCN1020
	R853-859	CARBONFILM RESISTOR	RD1/6PM□□□J
	R902-905	CARBONFILM RESISTOR	RD1/6PM□□□J
	R913	CARBONFILM RESISTOR	RD1/6PM□□□J
	R914	METAL OXIDE RESISTOR	RS2LMF□□□J
	R915-919	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1001-1010	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1108-1110	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1111	CARBONFILM RESISTOR	RD1/2LF□□□J
	R1112-1114	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1201	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1301, 1302	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1304, 1305	CARBONFILM RESISTOR	RD1/6PM□□□J
⚠	R1308	FUSIBLE RESISTOR	RFA1/4L□□□J
	R1601, 1602	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1605-1608	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1613-1623	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1625, 1626	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1641, 1642	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1650	METAL OXIDE RESISTOR	RS2LMF□□□J
	VR101, 102	VR	RCP1046
	VR301, 302	VR	RCP1046
	VR431, 432	VR	RCP1046
	VR801	VARIABLE RESISTOR	RCP-031
	VR1102	VR	RCP1046
OTHERS			
	CN402		BTMK12P-1R
	CN403		BTMK08P-1R
	CN404		BTMK06P-1R
	CN405		BTMK08P-1R
	JA201	JACK	RKB-020
	JA401	JACK	RKN1014
	JA402, 403	JACK	RKN1004
	X401	CERAMIC RESONATOR	VSS1014

HEADPHONE UNIT

CAPACITORS

	C1651	CERAMIC CAPACITOR	CKCYF473Z50

RESISTORS

	R1651, 1652	CARBONFILM RESISTOR	RD1/6PM□□□J

OTHERS

	JA1601	JACK	RKN1002

TIMER SW UNIT

SWITCHES

	S401	SWITCH	RSH1014

POWER SW UNIT

SWITCHES

⚠	S1501	SWITCH	RSA-063

CAPACITORS

⚠	C1501	CAPACITOR (CERAMIC)	RCG-009

TRANS PRI UNIT

There is no supply part in this unit.

TRANS SEC UNIT

There is no supply part in this unit.

REGULATOR IC UNIT

SEMICONDUCTORS

⚠	IC1202	REGULATOR IC	TA7812S

CAPACITORS

	C1207	AUDIO FILM CAPACITOR	CFTXA104J50

Mark	No.	Description	Part No.

DISPLAY UNIT

SEMICONDUCTORS

	Q1401, 1402 TRANSISTOR	2SA1309A
	Q1403, 1404 DIGITAL TRANSISTOR	DTA114ES
	Q1405, 1406 TRANSISTOR	DTC114ES
	D1401-1412 DIODE	1SS254

SWITCHES

	S1401	RSH1018
	S1402-1411 SWITCH	RSG1033
	S1412	RSG1010
	S1413 SWITCH	RSG1033
	S1414 SWITCH	RSH1001
	FL HOLDER	RNK1499
	CN402	BTMK12S-1S
	CN403	BTMK08S-1S
	CN404	BTMK06S-1S

RESISTORS

	R1401-1409 CARBONFILM RESISTOR	RD1/6PM□□□J
	VR1401 VR	RCV1050
	VR1402 VR	RCS1014

OTHERS

	CN405	BTMK08S-1S
	V1401	RAW1081

6.2 CT-S339

NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%)

560 Ω → 56 × 10^1 → 561 ····· RD1/4PS 5 6 1 J

47k Ω → 47 × 10^3 → 473 ····· RD1/4PS 4 7 3 J

0.5 Ω → 0R5 ··· RN2H 0 R 5 K

1 Ω → 010 ··· RS1P 0 1 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10^1 → 5621 ····· RN1/4SR 5 6 2 1 F

Mark	No.	Description	Part No.
		HX UNIT	
		SEMICONDUCTORS	
	IC601	DOLBY HX PRO IC	UPC1297CA
	Q601, 602	TRANSISTOR	2SA1309A
	Q603	TRANSISTOR	DTC124ES
	D601, 602	DIODE	1SS254
		COILS/TRANSFORMERS	
	L601, 602	COIL	RTD1046
		CAPACITORS	
	C601, 602	AUDIO FILM CAPACITOR	CFTXA103J50
	C603, 604	AXIAL CAPACITOR	CKPUYB821K50
	C605, 606	AUDIO FILM CAPACITOR	CFTXA223J50
	C607, 608	CERAMIC CAPACITOR	CGCYX473K25
	C609, 610	CERAMIC CAPACITOR	CCCSL101K500
	C611, 612	CERAMIC CAPACITOR	RCG1005
	C613	AXIAL CAPACITOR	CKPUYB101K50
	C614	ELECTR. CAPACITOR	CEASR10M50
	C615	ELECTR. CAPACITOR	CEAS100M50
	C616	ELECTR. CAPACITOR	CEAS4R7M50
	C617	ELECTR. CAPACITOR	CEAS100M50
		RESISTORS	
	R601-609	CARBONFILM RESISTOR	RD1/6PM□□□J
	VR601, 602	VR	VRTB6HS223
		MAIN UNIT	
		SEMICONDUCTORS	
	IC101	OP-AMP IC	M5220L
	IC102	IC	BA3126N
	IC201	DOLBY B/C IC	CXA1330S
	IC203	OP-AMP, IC	M5218AL
	IC301	REC EQUALIZER IC	CXA1198AP
	IC401	MCU	PD4313A
	IC431	OP-AMP, IC	M5218AL
	IC442	LOGIC IC	TC4066BP
	IC503	CMOS LOGIC IC	TC4050BP
	IC901	IC	BA6218
	IC1001	IC	BA15218N
⚠	IC1201	REGULATOR IC	NJM7812FA
⚠	IC1301	REGULATOR IC	NJM78M05FA
⚠	IC1302	REGULATOR IC	NJM79M12FA
⚠	IC1303	REGULATOR IC	NJM79L05A
	IC1601	OP-AMP, IC	M5218AL
	IC1602	OP-AMP IC	BA15218
	IC1603	DUAL-COMPARATOR IC	M5233L
	Q101	TRANSISTOR	2SC3311A
	Q103, 104	TRANSISTOR	DTC114ES
	Q201, 202	TRANSISTOR	2SD1302
	Q211, 212	TRANSISTOR	2SD1302
	Q231	DIGITAL TRANSISTOR	DTA114ES
	Q232-234	TRANSISTOR	DTC114ES
	Q301, 302	TRANSISTOR	2SC3311A
	Q303-306	TRANSISTOR	DTC114ES
	Q361-374	TRANSISTOR	DTC114ES
	Q401	TRANSISTOR	DTC114ES
	Q402	TRANSISTOR	2SA1309A
	Q441	TRANSISTOR	DTC114ES
	Q451	TRANSISTOR	2SA1309A
	Q453-455	TRANSISTOR	DTC114ES
	Q701	TRANSISTOR	2SA1309A
	Q702, 703	TRANSISTOR	2SC3311A
	Q704	TRANSISTOR	2SA1309A
	Q801-803	TRANSISTOR	2SD1302
	Q851, 852	TRANSISTOR	2SB1238X
	Q853, 854	TRANSISTOR	2SC3311A
	Q901	TRANSISTOR	2SC3246
	Q902	TRANSISTOR	2SC3311A
	Q905-907	TRANSISTOR	2SD1858X
	Q908	TRANSISTOR	2SC3311A
	Q1601, 1602	TRANSISTOR	2SD1302
	Q1603, 1604	DIGITAL TRANSISTOR	DTC114TS
	D201, 202	DIODE	1SS254
	D401	ZENER DIODE	MTZJ4.3B
	D402-410	DIODE	1SS254
	D413	DIODE	1SS254
	D414	ZENER DIODE	MTZJ9.1A
	D415, 416	DIODE	1SS254

Mark	No.	Description	Part No.
	D418	DIODE	1SS254
	D451	DIODE	1SS254
	D501-505	DIODE	1SS254
	D701	DIODE	1SS254
	D851	DIODE	1SS254
	D852	DIODE	1SS252
	D853-856	DIODE	1SS254
	D901	DIODE	1SS252
	D1001, 1002	DIODE	1SS254
	D1203, 1204	DIODE	1SS254
⚠	D1211-1214	DIODE	1SR35-100AVL
⚠	D1302	DIODE	1SR35-100AVL
⚠	D1303	DIODE	1SS252
⚠	D1304	ZENER DIODE	MTZJ20A
⚠	D1305	ZENER DIODE	MTZJ9. 1A
	D1601-1603	DIODE	1SS254
COILS/TRANSFORMERS			
	L301, 302	COIL	RTF1102
	L801	RADIAL INDUCTOR	LRA121K
	L802		RTD1054
	F201, 202	FILTER	RTF1062
CAPACITORS			
	C101, 102	AXIAL CAPACITOR	CKPUYB681K50
	C103, 104	ELECTR. CAPACITOR	CEANL100M16
	C105, 106	AXIAL CAPACITOR	CKPUYB101K50
	C107, 108	ELECTR. CAPACITOR	CEANL101M10
	C109, 110	AUDIO FILM CAPACITOR	CFTXA223J50
	C111, 112	ELECTR. CAPACITOR	CEAS100M50
	C113, 114	AUDIO FILM CAPACITOR	CFTXA223J50
	C115, 116	CERAMIC CAPACITOR	CKPUYB102K50
	C117	ELECTR. CAPACITOR	CEAS101M25
	C118	CERAMIC CAPACITOR	CKCYF103Z50
	C119	ELECTR. CAPACITOR	CEAS470M16
	C120	ELECTR. CAPACITOR	CEAS010M50
	C201-204	ELECTR. CAPACITOR	CEAS010M50
	C205-208	ELECTR. CAPACITOR	CEAS100M50
	C209, 210	ELECTR. CAPACITOR	CEAS4R7M50
	C211-214	AUDIO FILM CAPACITOR	CFTXA222J50
	C215, 216	ELECTR. CAPACITOR	CEASR22M50
	C217, 218	ELECTR. CAPACITOR	CEASR33M50
	C219, 220	ELECTR. CAPACITOR	CEAS330M16
	C221	ELECTR. CAPACITOR	CEAS100M50
	C222	CERAMIC CAPACITOR	CKPUYY103M16
	C223, 224	ELECTR. CAPACITOR	CEASR33M50
	C227	ELECTR. CAPACITOR	CEAS101M25
	C229, 230	ELECTR. CAPACITOR	CEAS100M50
	C231, 232	CERAMIC CAPACITOR	CKCYF473Z50
	C255, 256	ELECTR. CAPACITOR	CEAS100M50
	C257, 258	AXIAL CAPACITOR	CKPUYB101K50
	C259, 260	ELECTR. CAPACITOR	CEAS100M50
	C261	ELECTR. CAPACITOR	CEAS470M16
	C263, 264	AXIAL CAPACITOR	CKPUYB101K50
	C301, 302	AXIAL CAPACITOR	CKPUYB221K50
	C303, 304	ELECTR. CAPACITOR	CEAS4R7M50
	C305, 306	ELECTR. CAPACITOR	CEAS101M25
	C307, 308	ELECTR. CAPACITOR	CEAS010M50
	C309	ELECTR. CAPACITOR	CEAS101M25
	C310	ELECTR. CAPACITOR	CEAS4R7M50
	C312	CERAMIC CAPACITOR	CKCYF473Z50
	C313, 314	ELECTR. CAPACITOR	CEAS4R7M50
	C401	CERAMIC CAPACITOR	CKCYF103Z50
	C402	ELECTR. CAPACITOR	CEAS470M16
	C403-406	CERAMIC CAPACITOR	CKCYF103Z50
	C407	CERAMIC CAPACITOR	CKCYF473Z50
	C431	AUDIO FILM CAPACITOR	CFTXA223J50
	C432	AUDIO FILM CAPACITOR	CFTXA222J50
	C433, 434	ELECTR. CAPACITOR	CEAS010M50
	C435	CERAMIC CAPACITOR	CGCYX104K25
	C436	AUDIO FILM CAPACITOR	CFTXA103J50
	C509	CERAMIC CAPACITOR	CKCYF473Z50
	C701	ELECTR. CAPACITOR	CEAS4R7M50
	C702	ELECTR. CAPACITOR	CEAS470M16
	C804	AUDIO FILM CAPACITOR	CFTXA223J50
	C805	CERAMIC CAPACITOR	CGCYX682K25
	C806, 807	CERAMIC CAPACITOR	CGCYX332K25
	C808	ELECTR. CAPACITOR	CEAS100M50
	C811	CAPACITOR	CQPA682J100
	C851, 852	ELECTR. CAPACITOR	CEAS470M16
	C901	CERAMIC CAPACITOR	CGCYX104K25
	C905	CERAMIC CAPACITOR	CKPUYY103M16
	C1001, 1002	CERAMIC CAPACITOR	CGCYX822K25
	C1003	AXIAL CAPACITOR	CKPUYB101K50
	C1004	AXIAL CAPACITOR	CKPUYB271K50
	C1005	ELECTR. CAPACITOR	CEASR47M50
	C1006	ELECTR. CAPACITOR	CEASR22M50
	C1201, 1202	CERAMIC CAPACITOR	CKCYF473Z50
	C1203	ELECTR. CAPACITOR	CEAS332M35
	C1204	ELECTR. CAPACITOR	CEAS331M16
	C1205	AUDIO FILM CAPACITOR	CFTXA103J50
	C1206	ELECTR. CAPACITOR	CEAS331M16
	C1301	ELECTR. CAPACITOR	CEAS332M16
	C1303	ELECTR. CAPACITOR	CEAS331M16
	C1305	AUDIO FILM CAPACITOR	CFTXA103J50
	C1306	ELECTR. CAPACITOR	CEAS101M50
	C1309	ELECTR. CAPACITOR	CEAS101M50
	C1310	ELECTR. CAPACITOR	CEAS470M16
	C1311-1313	CERAMIC CAPACITOR	CKCYF473Z50
	C1601, 1602	ELECTR. CAPACITOR	CEASR10M50
	C1605, 1606	ELECTR. CAPACITOR	CEAS101M25
	C1610	ELECTR. CAPACITOR	CEAS331M16
	C1611	CERAMIC CAPACITOR	CKCYF473Z50
	C1613	ELECTR. CAPACITOR	CEAS331M16
	C1614	ELECTR. CAPACITOR	CEAS330M35
	C1615, 1616	ELECTR. CAPACITOR	CEAS100M50
	C1617, 1618	ELECTR. CAPACITOR	CEASR47M50
	C1621	CERAMIC CAPACITOR	CKCYF473Z50
RESISTORS			
	R101-120	CARBONFILM RESISTOR	RD1/6PM□□□J

Mark	No.	Description	Part No.
	R201-211	CARBONFILM RESISTOR	RD1/6PM□□□J
	R214	CARBONFILM RESISTOR	RD1/6PM□□□J
	R231-238	CARBONFILM RESISTOR	RD1/6PM□□□J
	R251-256	CARBONFILM RESISTOR	RD1/6PM□□□J
	R261-268	CARBONFILM RESISTOR	RD1/6PM□□□J
	R301-306	CARBONFILM RESISTOR	RD1/6PM□□□J
	R313-318	CARBONFILM RESISTOR	RD1/6PM□□□J
	R325-331	CARBONFILM RESISTOR	RD1/6PM□□□J
	R337-350	CARBONFILM RESISTOR	RD1/6PM□□□J
	R357, 358	CARBONFILM RESISTOR	RD1/6PM□□□J
	R361-375	CARBONFILM RESISTOR	RD1/6PM□□□J
	R401	RESISTOR ARRAY (22K)	RA4T□□□J
	R402	RESISTOR ARRAY(68K)	RA8T□□□J
	R404	RESISTOR ARRAY(100K)	RA10T□□□J
	R405-407	CARBONFILM RESISTOR	RD1/6PM□□□J
	R409-416	CARBONFILM RESISTOR	RD1/6PM□□□J
	R418	CARBONFILM RESISTOR	RD1/6PM□□□J
	R420-425	CARBONFILM RESISTOR	RD1/6PM□□□J
	R431-435	CARBONFILM RESISTOR	RD1/6PM□□□J
	R437, 438	CARBONFILM RESISTOR	RD1/6PM□□□J
	R443-445	CARBONFILM RESISTOR	RD1/6PM□□□J
	R452	CARBONFILM RESISTOR	RD1/6PM□□□J
	R454	CARBONFILM RESISTOR	RD1/6PM□□□J
	R515	RESISTOR ARRAY (22K)	RA5T□□□J
	R516	LADDER RESISTOR	RCX1020
	R518, 519	CARBONFILM RESISTOR	RD1/6PM□□□J
	R701-711	CARBONFILM RESISTOR	RD1/6PM□□□J
	R801-806	CARBONFILM RESISTOR	RD1/6PM□□□J
	R810	CARBONFILM RESISTOR	RD1/6PM□□□J
	R813	CARBONFILM RESISTOR	RD1/2LF□□□J
	R851, 852	CARBONFILM RESISTOR	RD1/2LF□□□J
	R853-859	CARBONFILM RESISTOR	RD1/6PM□□□J
	R902-905	CARBONFILM RESISTOR	RD1/6PM□□□J
	R913	CARBONFILM RESISTOR	RD1/6PM□□□J
	R914	METAL OXIDE RESISTOR	RS2LMF□□□J
	R915-919	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1001-1010	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1201	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1301, 1302	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1304, 1305	CARBONFILM RESISTOR	RD1/6PM□□□J
⚠	R1308	FUSLIBLE RESISTOR	RFA1/4L□□□J
	R1601, 1602	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1605-1608	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1613-1623	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1625, 1626	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1641, 1642	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1650	METAL OXIDE RESISTOR	RS2LMF□□□J
	VR101, 102	VR	RCP1046
	VR301, 302	VR	RCP1046
	VR431, 432	VR	RCP1046
OTHERS			
	CN402		BTMK12P-1R
	CN403		BTMK08P-1R
	CN404		BTMK06P-1R
	CN405		BTMK08P-1R
	JA201	JACK	RKB-020
	JA401	JACK	RKN1014
	JA402, 403	JACK	RKN1004
	X401	CERAMIC RESONATOR	VSS1014

DISPLAY UNIT

SEMICONDUCTORS

Q1401, 1402	TRANSISTOR	2SA1309A
Q1403, 1404	DIGITAL TRANSISTOR	DTA114ES
Q1405, 1406	TRANSISTOR	DTC114ES
D1403-1412	DIODE	1SS254

SWITCHES

S1402-1405	SWITCH	RSG1033
S1407-1411	SWITCH	RSG1033
S1412		RSG1010
S1413	SWITCH	RSG1033
S1414	SWITCH	RSH1001

RESISTORS

R1401-1409	CARBONFILM RESISTOR	RD1/6PM□□□J
VR1401	VARIABLE RESISTOR	RCV1050
VR1402	VARIABLE RESISTOR	RCS1014

OTHERS

CN405		BTMK08S-1S
FL	HOLDER	RNK1499
CN402		BTMK12S-1S
CN403		BTMK08S-1S
CN404		BTMK06S-1S
V1401		RAW1073

HEADPHONE UNIT

CAPACITORS

C1651	CERAMIC CAPACITOR	CKCYF473Z50

RESISTORS

R1651, 1652	CARBONFILM RESISTOR	RD1/6PM□□□J

OTHERS

JA1601	JACK	RKN1002

TIMER SW UNIT

SWITCHES

S401	SWITCH	RSH1014

POWER SW UNIT

SWITCHES

⚠	S1501 SWITCH	RSA-063

CAPACITORS

⚠	C1501 CAPACITOR (CERAMIC)	RCG-009

Mark	No.	Description	Part No.

TRANS PRI UNIT

There is no supply part in this unit.

TRANS SEC UNIT

There is no supply part in this unit.

REGULATOR IC UNIT

SEMICONDUCTORS

⚠	IC1202	REGULATOR IC	TA7812S

CAPACITORS

	C1207	AUDIO FILM CAPACITOR	CFTXA104J50

MIC UNIT

SEMICONDUCTORS

	IC2001	OP-AMP, IC	M5218AL

CAPACITORS

	C2001, 2002	AXIAL CAPACITOR	CKPUYB681K50
	C2003, 2004	ELECTR. CAPACITOR	CEAS010M50
	C2005, 2006	ELECTR. CAPACITOR	CEAS470M16
	C2007, 2008	AXIAL CAPACITOR	CKPUYB101K50
	C2009, 2010	ELECTR. CAPACITOR	CEAS470M16
	C2011, 2012	ELECTR. CAPACITOR	CEAS010M50
	C2017	CERAMIC CAPACITOR	CKCYF473Z50

RESISTORS

	R2001-2016	CARBONFILM RESISTOR	RD1/6PM□□□J

OTHERS

	JA2001, 2002	JACK	RKN1003

7. ADJUSTMENTS

7.1 MECHANICAL ADJUSTMENT

1. Tape speed Adjustment

Mode	Test tape	Adjustment position	Specification rating (playback frequency)
PLAY	Play the STD–301 tape (3kHz)	Tape speed adjustment hole	3000Hz ± 5Hz

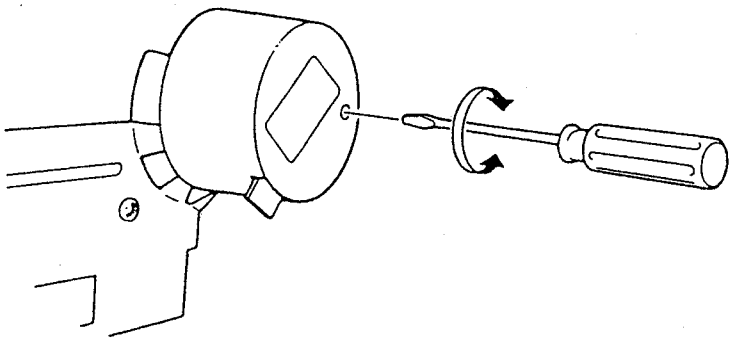


Fig. 7–1 Tape speed adjustment

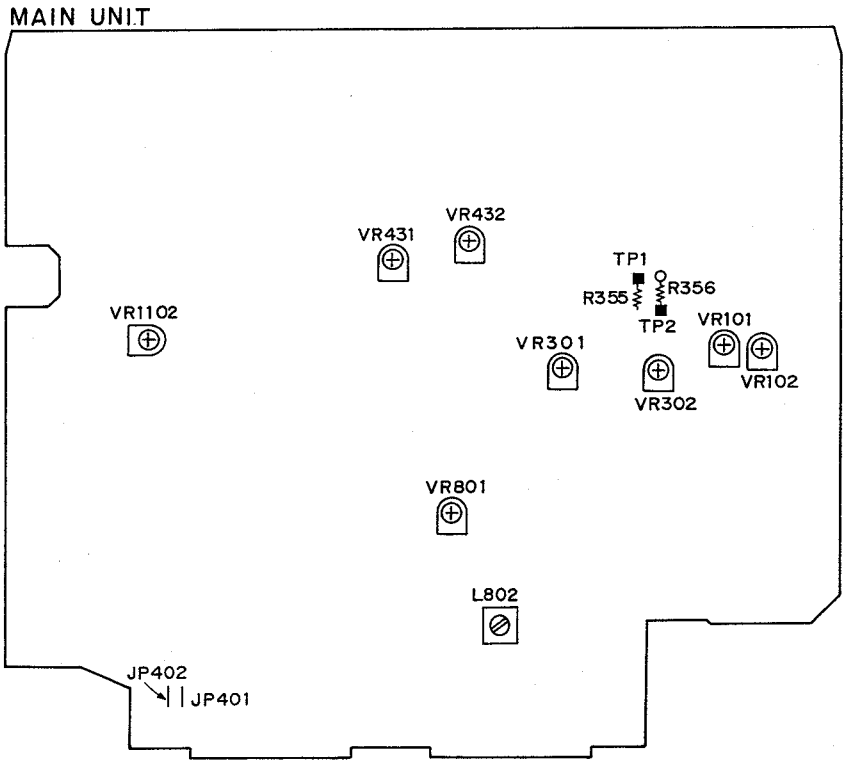


Fig. 7–2 Adjusting points

7.2 ELECTRICAL ADJUSTMENTS

Adjustment Conditions

1. The mechanical adjustments must be completed first.
2. The head must be cleaned and demagnetized.
3. Turn power on allow the deck to warm up for at least a few minutes before commencing any electrical adjustments.
4. The reference signal is 0 dBv=1 Vrms.
5. Connect a 50 kΩ (or between 47k to 52 kΩ) load resistance to the OUTPUT terminals.
6. Unless otherwise specified, the switches listed below are left in the positions indicated.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Test Tapes

STD–331B : Playback adjustments (See Fig. 7–3)
STD–630 : NORMAL blank tape
STD–620 : CrO_2 blank tape
STD–610 : METAL blank tape

List of Adjustments

Playback sections

1. Head azimuth adjustment.
2. Playback level adjustment.

Recording sections

1. Bias oscillator adjustment.
2. Erase current adjustment. (CT–S609R only)
3. Recording bias adjustment.
4. Recording level adjustment.
5. Level meter check.
6. Leader tape detection operation adjustment. (CT–S609R only)
7. AUTO BLE adjustment

HX Pro headroom extension originated by Bang & Olufsen and manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY", the double-D symbol ◻◻, and "HX PRO" are trademarks of Doldy Laboratories Licensing Corporation.

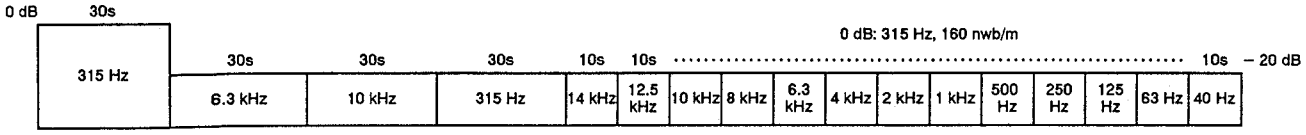
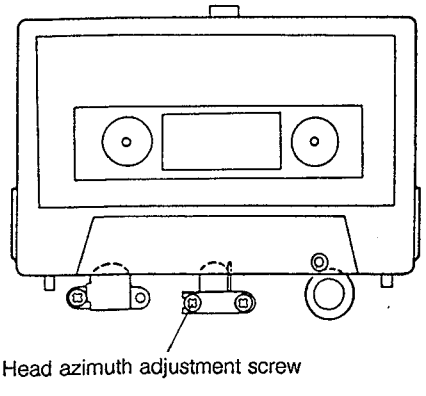


Fig. 7–3 Constants of the test tape STD–331B

CT-339



CT-S609R

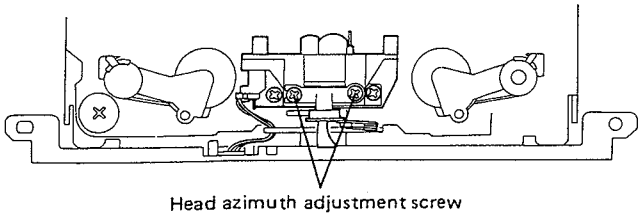


Fig. 7–4 Head azimuth adjustme.

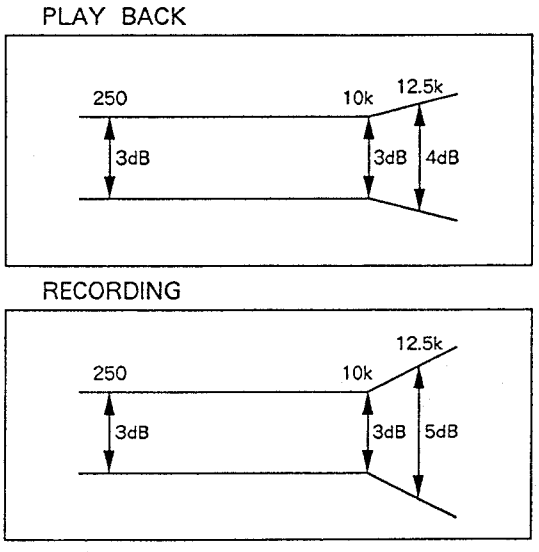


Fig. 7–5 Frequency response zone

PLAYBACK SECTION

1. Head Azimuth Adjustment

- Turn VR101, 102 (Deck I) to mechanical center positions.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 10 kHz/–20 dB section of STD–331B test tape.	Head azimuth adjustment screw. (See Fig. 7–4)	LINE OUT	Maximum playback signal level.	
2.	STOP	Lock the screw with screw lock after completing adjustment.				

2. Playback Level Adjustment

- This adjustment determines the DOLBY NR level, and must be performed with great care.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 315 Hz/0 dB section of the STD–331B test tape.	Deck I	VR101 (Lch) VR102 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	–10.7 dBv	

RECORDING SECTION

1. Bias Oscillator Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Load the STD–610 test tape with no input signal.	Deck I	L802	TP. 11	105 ± 0.3 kHz	

2. Erase Current Adjustment (CT–S609R only)

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Load the STD–610 test tape with no input signal.	Deck I	VR801	TP. 11	170 mV AC	

3. Recording Bias Adjustment

- After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	STOP	Set the TAPE SELECTOR switch to the NORM position.					
2.	REC	Record the 315 Hz and 6.3 kHz signals at –20 dBv input level and playback.	Deck I	VR601 (Lch) VR602 (Rch)	LINE OUT	Repeatedly record, playback and adjust so that the plyaback level of 6.3 kHz signal becomes +0.5 dB ± 0.5 dB when compared with the 315 Hz signal.	

4. Recording Level Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	STOP	Set the TAPE SELECTOR switch to the NORM position.					
2.	REC/ PAUSE	Apply a 315 Hz/0 dBv signal to the line input terminals, load the STD-630 test tape.	REC level control volume		TP. 1 (Lch) TP. 2 (Rch)	-11.2 dBv	
3.	STOP	Set the DOLBY NR switch to the ON position. (DOLBY B)					
4.	REC/ PLAY	Record the above signal onto the STD-630 test tape, and playback.	Deck I	VR301 (Lch) VR302 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Repeatedly record, playback and adjust so that the playback signal level becomes -11.2 dB.	
5.	STOP	Set the TAPE SELECTOR switch to the CrO2 position.					
6.	REC/ PLAY	Record the above signal onto the STD-620 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	-11.2 dBv ± 1.5 dB	
7.	STOP	Set the TAPE SELECTOR switch to the METAL position.					
8.	REC/ PLAY	Record the above signal onto the STD-610 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	-11.2 dBv ± 1.5 dB	

5. Level Meter Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC/ PAUSE	Apply a 315 Hz/-10 dBv (316 mV) signal to the Line Input terminals.	REC level control volume	TP. 1 (Lch) TP. 2 (Rch)	Check that the level meters "0 dB" light up within -11.2 dBv ± 2 dB of the signal output level.	

6. Leader Tape Detection Operation Adjustment (CT-S609R only)

No.	Mode	Input signal & test tape	Adjustment location		Measuring location		Adjustment value	Remarks
1.	PLAY	No input-load an empty cassette half.	Deck I	VR1102	Deck I	TP. 12-1	1.0V $\pm^{0}_{0.1}$ V (DC)	
2.	Check that the leader tape detection operation is correctly performed (inboth FWD and REV directions when in endless reverse mode).							

7. AUTO BLE Adjustment

- BLE adjustment should be performed after all other adjustments are completed.
- This adjustment should be performed in the test mode.
- Entering the test mode.
  Turn the power on, and short JP401 and JP402 briefly.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	-	Set to test mode.	-	-	-	
2.		Press the ◀◀ (REW) key on the front panel.	Level meter	VR431	Adjust so that 0 dB on the level meter lights up.	400 Hz adjustment
3.		Press the ■ (STOP) key on the front panel.		VR432	Adjust so that 0 dB on the level meter lights up.	10 kHz adjustment

7. RÉGLAGE

7.1 RÉGLAGES MECANIQUES

1. Réglage de la vitesse de défilement de la bande

Mode	Bande d'étalonnage	Position de réglage	Spécifications nominales (fréquence de lecture)
LECTURE	Lire la bande STD-301 (3kHz)	Trou de réglage de vitesse de bande	3000Hz ± 5Hz

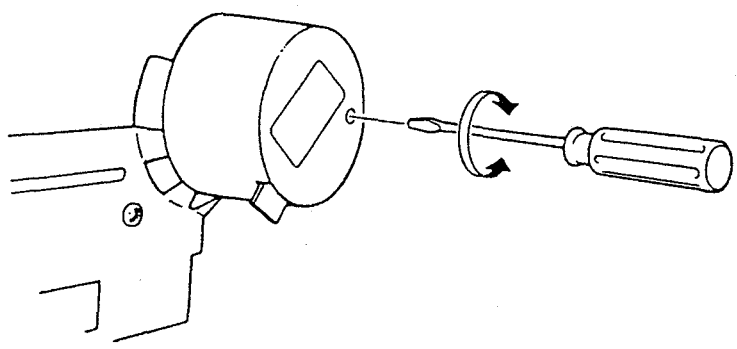


Fig. 7–1 Réglage de la vitesse de défilement de la bande

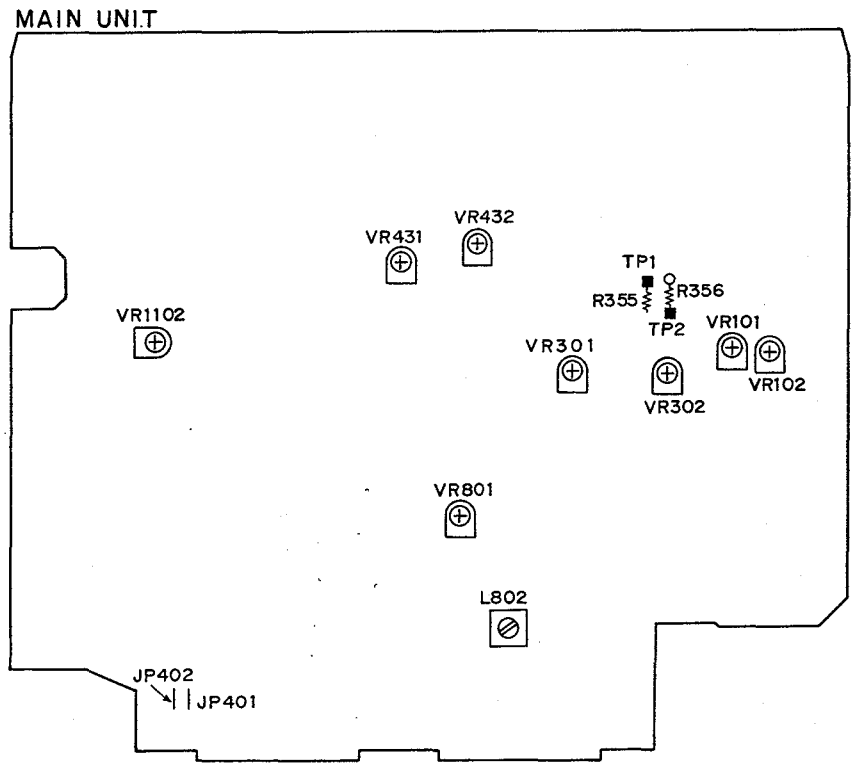


Fig. 7–2 Points de réglage

7.2 REGLAGES ELECTRIQUES

Conditions de réglage

1. Les réglages mécaniques doivent tout d'abord être terminés.
2. Les têtes doivent être nettoyées et démagnétisées.
3. Mettre la platine sous tension et la laisser chauffer pendant au moins quelques minutes avant de commencer les réglages électriques.
4. Le signal de référence est de 0 dBv=1 Vrms.
5. Connecter une résistance de charge de 50 kΩ (tolérance 47k à 52 kΩ) aux bornes de sortie (OUTPUT).
6. Sauf indication contraire, les commutateurs ci-dessous doivent être laissés sur les positions indiquées.
   DOLBY NR : OFF
   Sélecteur de bande (TAPE SELECTOR) : NORM

Bandes d'essai

STD-331B : Réglages de la lecture (Voir fig. 7-3)
STD-630 : Bande vierge de type normal
STD-620 : Bande vierge de type chrome
STD-610 : Bande vierge de type métal

Liste des réglages

Sections de lecture

1. Réglage de l'azimut de la tête.
2. Réglage du niveau de lecture.

Sections d'enregistrement

1. Réglage de l'oscillateur de polarisation.
2. Réglage du courant d'effacement. (CT-S609R seulement)
3. Réglage de la polarisation d'enregistrement.
4. Réglage du niveau d'enregistrement.
5. Vérification de l'indicateur de niveau.
6. Réglage du fonctionnement de la détection de bande amorce. (CT-S609R seulement)
7. Réglage de AUTO BLE

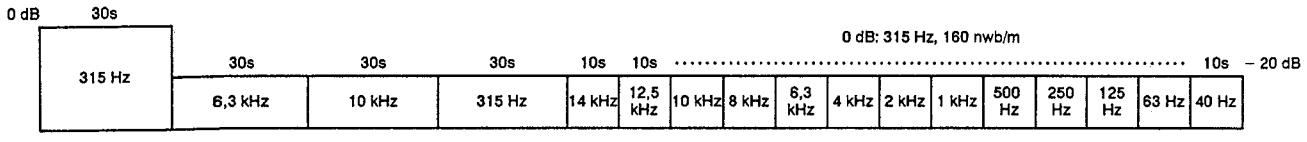
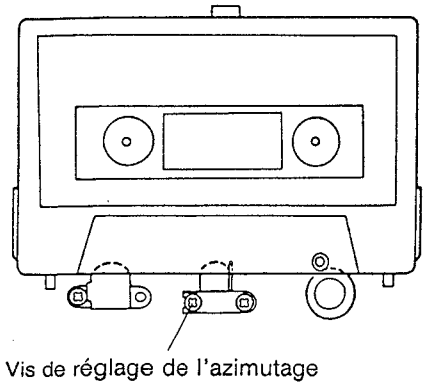


Fig. 7-3 Constantes de la bande d'essai STD-331B

CT-339



CT-S609R

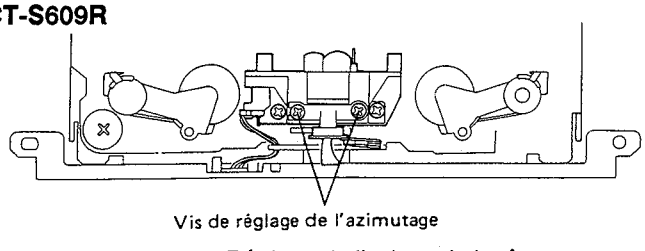


Fig. 7-4 Réglage de l'azimut de la tête

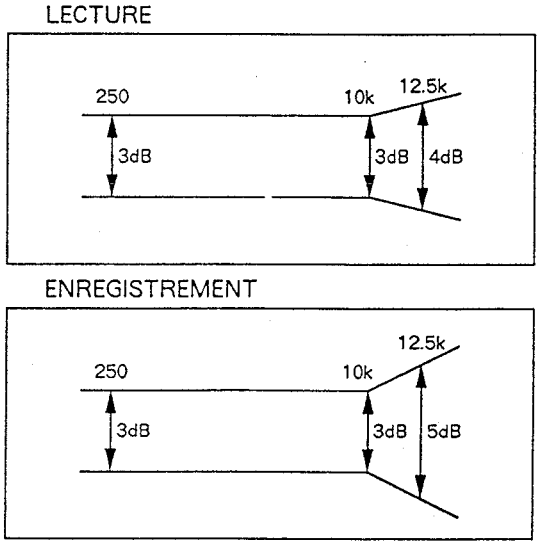


Fig. 7-5 Tolérance de la zone de réponse en fréquence de lecture

SECTION DE LECTURE

1. Réglage de l'azimut de la tête

- Tourner VR101, 102 (Platine I) sur leur position centrale mécanique.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	PLAY	Reproduire la section 10 kHz/–20 dB de la bande d'essai STD–331B.	Vis de réglage de l'azimut de la tête. (Voir fig. 7–4)	Sortie de ligne (LINE OUT)	Niveau du signal de reproduction maximum.	
2.	STOP	Verrouiller la vis avec le verrouillage de vis après avoir terminé le réglage.				

2. Réglage du niveau de lecture

- Ce réglage détermine le niveau DOLBY NR et il doit être effectué très soigneusement.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	PLAY	Reproduire la section 315 Hz/0 dB de la bande d'essai STD–331B.	Platine I	VR101 (can. G) VR102 (can. D)	TP. 1 (can. G) TP. 2 (can. D)	–10,7 dBv	

SECTION D'ENREGISTREMENT

1. Réglage de l'oscillateur de polarisation

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	REC	Charger la bande d'essai STD–610 et n'introduire aucun signal.	Platine I	L802	TP. 11	105 ± 0,3 kHz	

2. Réglage du courant d'effacement (CT–S609R seulement)

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	REC	Charger la bande d'essai STD–610 et n'introduire aucun signal.	Platine I	VR801	TP. 11	170 mV AC	

3. Réglage de la polarisation d'enregistrement

- Après le réglage, des précautions doivent être prises pour éviter une sous–polarisation en vérifiant le taux de distorsion.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position NORM.					
2.	REC	Enregistrer les signaux 315 Hz et 6,3 kHz à un niveau d'entrée de –20 dBv et les reproduire.	Platine I	VR601 (can. G) VR602 (can. D)	Sortie de ligne (LINE OUT)	Enregistrer, reproduire et régler de manière répétée de sorte que le niveau de lecture du signal 6,3 kHz devienne +0,5 dB ± 0,5 dB lorsqu'il est comparé avec le signal 315 Hz.	

4. Réglage du niveau d'enregistrement

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position NORM.					
2.	REC/ PAUSE	Appliquer un signal de 315 Hz/0 dBv aux bornes d'entrée de ligne, charger la bande d'essai STD–630.	Volume de la commande de niveau d'enregistrement.		TP. 1 (can. G) TP. 2 (can. D)	–11,2 dBv	
3.	STOP	Régler le commutateur DOLBY NR sur la position ON. (DOLBY B)					
4.	REC/ PLAY	Enregistrer le signal cidessus sur la bande d'essai STD–630 et le reproduire.	Platine I	VR301 (can. G) VR302 (can. D)	TP. 1 (can. G) TP. 2 (can. D)	Enregistrer, reproduire et régler de manière répétée de sorte que le niveau du signal devienne –11,2 dB.	
5.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position CrO2.					
6.	REC/ PLAY	Enregistrer le signal cidessus sur la bande d'essai STD–620 et le reproduire.	Vérifier		TP. 1 (can. G) TP. 2 (can. D)	–11,2 dBv ± 1,5 dB	
7.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position METAL.					
8.	REC/ PLAY	Enregistrer le signal cidessus sur la bande d'essai STD–610 et le reproduire.	Vérifier		TP. 1 (can. G) TP. 2 (can. D)	–11,2 dBv ± 1,5 dB	

5. Vérification de l'indicateur de niveau

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	REC/ PAUSE	Appliquer un signal de 315 Hz/–10 dBv (316 mV) aux bornes d'entrée de ligne.	Volume de la commande de niveau d'enregistrement	TP. 1 (can. G) TP. 2 (can. D)	Vérifier que les indicateurs de niveau "0 dB" s'allument dans la limite de –11,2 dBv ± 2 dB du niveau de sortie du signal.	

6. Réglage du fonctionnement de la détection de bande amorce (CT–S609R seulement)

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure		Valeur de réglage	Remarques
1.	PLAY	Pas d'entrée – Charger une moitié de cassette vide.	Platine I	VR1102	Deck I	TP. 12–1	1,0V $\pm^{0}_{0,1}$ V (DC)	
2.	Vérifier que l'opération de détection de bande amorce s'effectue correctement (à la fois dans le sens avant (FWD) et inverse (REV) dans le mode d'inversion sans fin).							

7. Réglage de AUTO BLE

- Leréglage BLE doit être effectué après que tous les autres réglages sont complétés.
- Ce réglage doit être effectué dans le mode d'essai.
- Passage au mode d'essai.
  Mettre sous tension et court–circuiter rapidement JP401 et JP402.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	–	Régler dans le mode d'essai.	–	–	–	
2.		Appuyer sur la touche ◀◀ (rembobinage) du panneau avant.	L'indicateur de niveau	VR431	Régler de sorte que 0 dB sur l'indicateur de niveau s'allume.	Réglage 400 Hz
3.		Appuyer sur la touche ■ (arrêt) du panneau avant.		VR432	Régler de sorte que 0 dB sur l'indicateur de niveau s'allume.	Réglage 10 kHz

7. AJUSTE

7.1 AJUSTE MECANICO

1. Ajuste de la velocidad de la cinta

Mode	Cinta de prueba	Posición de ajuste	Valor de especificación (frecuencia de reproducción)
PLAY	Reproducir la STD-301 (3kHz)	Orificio de ajuste de la velocidad de la cinta	3000Hz ± 5Hz

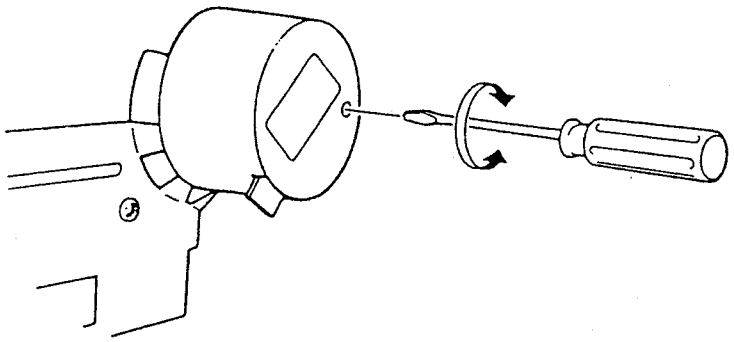


Figura 7–1 Ajuste de la velocidad de la cinta

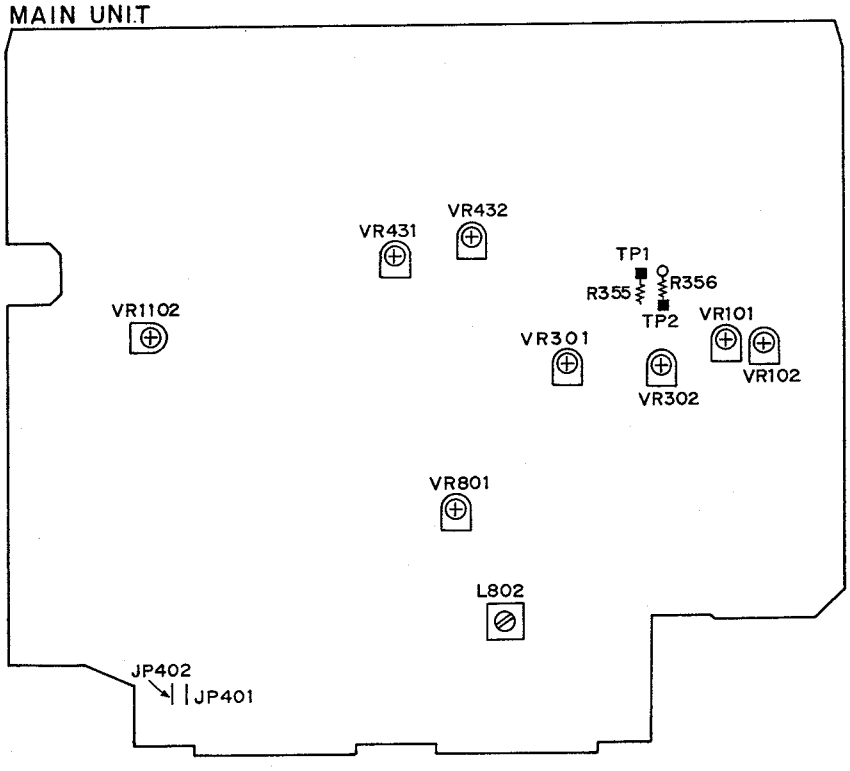


Figura 7–2 Puntos de ajuste

7.2 AJUSTES ELÉCTRICOS

Condiciones de ajuste

1. Los ajustes mecánicos deben haberse completado primero.
2. La cabeza debe estar limpia y desmagnetizada.
3. Encienda la alimentación para permitir que la platina se caliente durante unos pocos minutos por lo menos antes de realizar cualquier ajuste eléctrico.
4. La señal de referencia es de 0 dBv=1 Vrms.
5. Conecte una resistencia de 50 kΩ (o entre 47k y 52 kΩ) en los terminales OUTPUT.
6. A menos que se especifique lo contrario, los conmutadores indicados más abajo deben dejarse en las posiciones indicadas.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Cintas de prueba

STD–331B : Ajustes de reproducción (Consulte la figura 7–3)
STD–630 : Cinta virgen NORMAL
STD–620 : Cinta virgen de CrO_2
STD–610 : Cinta virgen de METAL

Lista de ajustes

Secciones de reproducción

1. Ajuste de azimut de la cabeza
2. Ajuste del nivel de reproducción

Secciones de grabación

1. Ajuste del oscillador de polarización
2. Ajuste de la corriente de borrado (CT–S609R sólo)
3. Ajuste de la polarización de grabación
4. Ajuste del nivel de grabación
5. Verificación del medidor de nivel
6. Ajuste de la operación de detección del extremo inicial de cinta (CT–S609R sólo)
7. Ajuste AUTO BLE

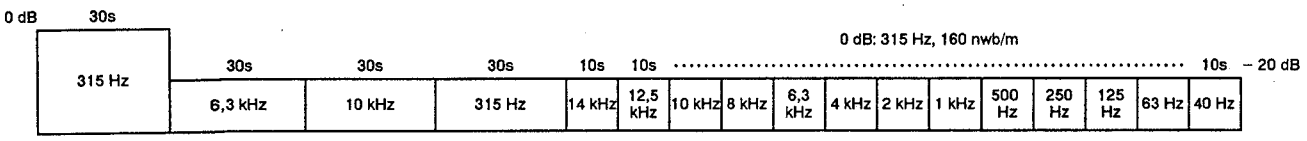
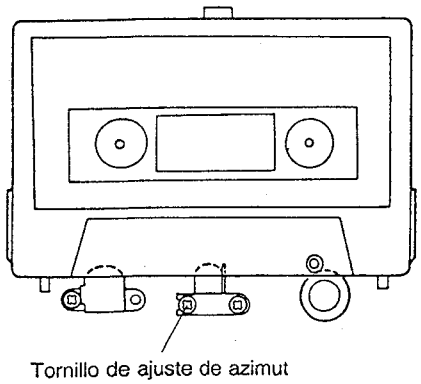


Figura 7–3 Constantes de la cinta de prueba STD–331B

CT-339



CT-S609R

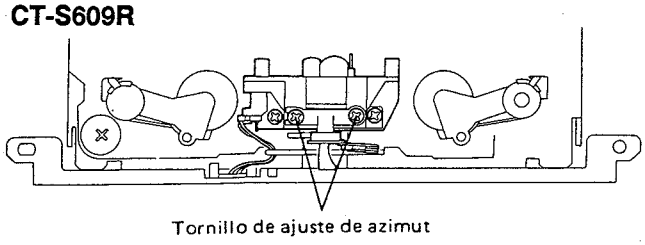


Figura 7–4 Ajuste de azimut de la cabeza

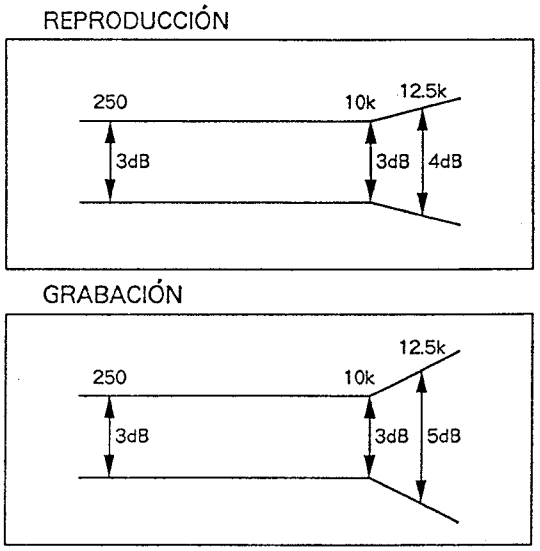


Figura 7–5 Zona permisible de respuesta de frecuencia de reproducción

SECCIÓN DE REPRODUCCIÓN

1. Ajuste del azimut de la cabeza

- Poner VR101, 102 (platina I) en las posiciones del centro mecánico.

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	PLAY	Reproduzca la sección de 10 kHz/–20 dB de la cinta de prueba STD–331B.	Tornillo de ajuste del azimut de la cabeza. (Vea la figura 7–4)	LINE OUT	Nivel máximo de la señal de reproducción.	
2.	STOP	Bloquee el tornillo con su cierre una vez finalizado el ajuste.				

2. Ajuste del nivel de reproducción

- Este ajuste determina el nivel DOLBY NR y debe realizarse con mucho cuidado.

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición	Valor de ajuste	Comentarios
1.	PLAY	Produzca la parte de 315 Hz/0 dB de la cinta de prueba STD–331B.	Platina I	VR101 (Lch) VR102 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	–10,7 dBv	

SECCIÓN DE GRABACIÓN

1. Ajuste del oscilador de polarización

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición	Valor de ajuste	Comentarios
1.	REC	Introduzca la cinta de prueba STD–610 sin señal de entrada.	Platina I	L802	TP. 11	105 ± 0,3 kHz	

2. Ajuste de la corriente de borrado (CT–S609R sólo)

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición	Valor de ajuste	Comentarios
1.	REC	Introduzca la cinta de prueba STD–610 sin señal de entrada.	Platina I	VR801	TP. 11	170 mV AC	

3. Ajuste de polarización de grabación

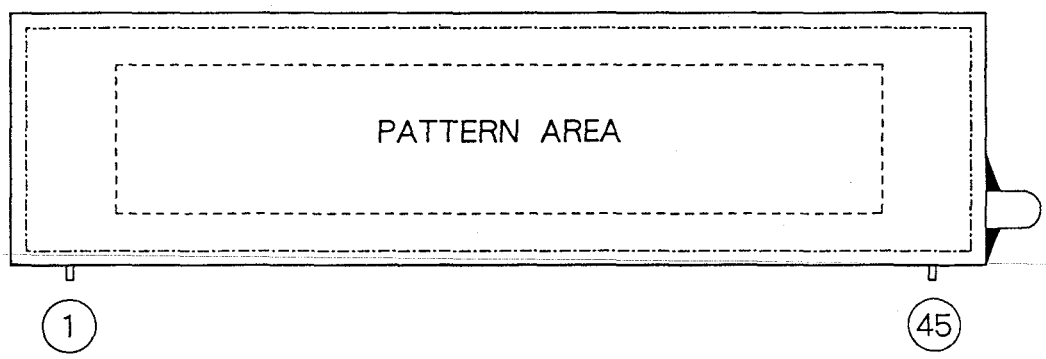
- Una vez finalizado el ajuste, compruebe el porcentaje de distorsión para no obtener subpolarización.

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición	Valor de ajuste	Comentarios
1.	STOP	Ponga el conmutador TAPE SELECTOR en la posición NORM.					
2.	REC	Grabe la señal de 315 Hz y 6,3 kHz a un nivel de entrada de –20 dBv y reprodúzcala.	Platina I	VR601 (Lch) VR602 (Rch)	LINE OUT	Grabe, reproduzca y ajuste repetidamente para que el nivel de la señal de reproducción de 6,3 kHz sea de +0,5 dB ± 0,5 dB cuando se compare con la señal de 315 Hz.	

Pin No.	Symbol	I/O	Function	Active
33		–	Not used	–
34				
35	RMP	O	Output terminal for reel motor play torque selection	H
36	RMUTE	O	Recording amplifier muting output terminal	H
37	RML	O	Reel motor REV direction drive terminal	H
38	CPM	O	Capstan motor drive terminal	H
39	XRESET	I	System reset terminal	L
40	T_0	O	Grid output terminal for dynamic FL display	H
41	T_1			
42	T_2			
43	T_3			
44	T_4			
45	T_5			
46	T_6			
47	T_7			
48	T_8			
49	T_9			
50	XLINEMUT	O	Line out muting terminal	L
51	BIAS	O	Bias oscillation. ON: "H", OFF: "L"	H
52	RECOVER	O	Meter amplifier time constant (recovery time) selection. "H": short	H
53	fSELECT	O	Output selection of 400 Hz or 10 kHz when AUTO–BLE. "H": 400 Hz	H
54	BLEON	O	When AUTO–BLE is "H", sets line in mute ON, dolby OFF and test signal ON.	H
55	S_{10}	O	(*1)	H
56		–	Not used	–
57	V_{PRE}	–	Output buffer supply terminal of FL controller/driver inside microprocessor.	–
58	S_9	O	(*1)	H
59	S_8			
60	S_7			
61	S_6			
62	S_5			
63	S_4			
64	V_{DD}	–	Power terminal +5V	–

*1: Same function as in Pin No. 1 to Pin No. 4.

• FL INFORMATION



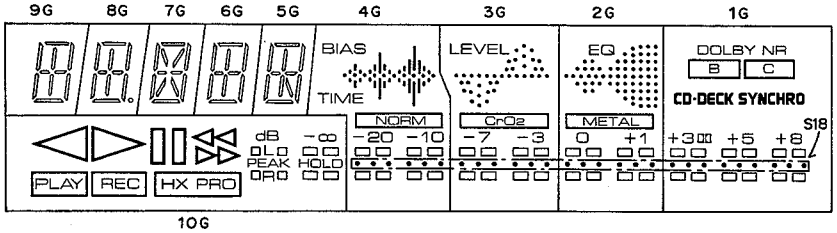
PIN CONNECTION

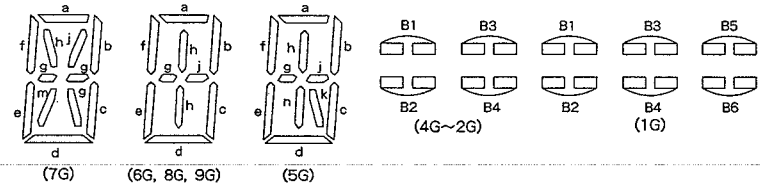
PIN NO.	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23
CONNECTION	F2	F2	NP	P12	P4	P5	P3	P11	P10	P7	P9	P8	P6	P2	P1	P15	P20	P21	P22	P17	P19	P14	P16

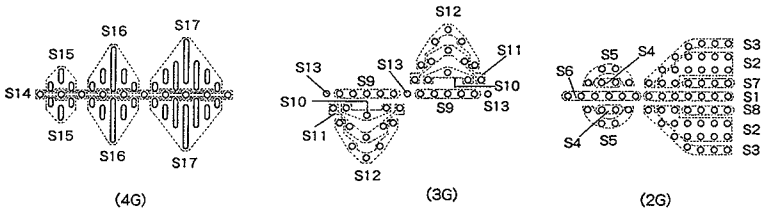
PIN NO.	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	P13	P29	P28	P18	P27	P26	P24	P25	23G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	F1	F1

Note: 1) F1, F2 ····· Filament
2) NP····· No pin
3) NC ····· No connection
4) 1G to 10G ··· Grid

CT-S609R, CT-339







ANODE CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	▮▮	a	a	a	a	a	B1	B1	B1	B1
P2	REC	b	b	b	b	b	B2	B2	B2	B2
P3	PLAY	c	c	c	c	c	B3	B3	B3	B3
P4	◀◀	d	d	d	d	d	B4	B4	B4	B4
P5	▶▶	e	e	e	e	e	S14	S9	S1	B5
P6	▶	f	f	f	f	f	S15	S10	S2	B6
P7	◀	g	g	g	g	g	S16	S11	S3	CD•DECK
P8	–	j	j	m	j	j	S17	S12	S4	SYNCHRO
P9	HOLD	h	h	j	h	h	TIME	S13	S5	BLANK SEARCH
P10	dB −∞	–	–	k	–	k	−20 −10	−7 −3	0 +1	+3 +5 +8
P11	dB −∞	–	dp	h	–	–	−4 −1	0 +1	+3 +6	+8 +10 +12
P12	PEAK	–	–	–	–	–	S18	S18	S18	S18
P13	–	–	–	–	–	–	–	–	S6	–
P14	–	–	–	–	–	–	BIAS	–	–	–
P15	HX PRO	–	–	–	–	–	–	–	–	–
P16	–	–	–	–	–	–	–	LEVEL	–	–
P17	–	–	–	–	–	–	–	BLE	–	–
P18	–	–	–	–	–	–	–	–	EQ	–
P19	–	–	–	–	–	–	–	–	TUNED	–
P20	–	–	–	–	–	–	NORM	–	–	–
P21	–	–	–	–	–	–	–	CrO_2	–	–
P22	–	–	–	–	–	–	–	–	METAL	–
P23	–	–	–	–	–	–	–	–	–	DOLBY NR
P24	–	–	–	–	–	–	–	–	–	B
P25	–	–	–	–	–	–	–	–	–	C
P26	–	–	–	–	–	–	–	–	S7	–
P27	–	–	–	–	–	–	–	–	S8	–
P28	–	–	–	–	–	–	–	–	–	–
P29	–	–	–	–	–	–	–	–	M	–

9. FOR CT–S609R/HEM, HB AND SD TYPES

CONTRAST OF MISCELLANEOUS PARTS

NOTES:
- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

The CT–S609R/HEM, HB and SD types are the same as the CT–S609R/KUC type with the exception of the following sections.

Mark	Symbol & Description	Part No.				Remarks
		CT–S609R/ KUC type	CT–S609R/ HEM type	CT–S609R/ HB type	CT–S609R/ SD type	
	Display unit	Non supply	Non supply	Non supply	Non supply	
	TRANS PRI unit	Non supply	Non supply	Non supply	Non supply	
⚠	Strain relief	CM–22	CM–22B	CM–22B	CM–22B	
⚠	AC Power cord	RDG1010	PDG1003	PDG1036	PDG1013	
⚠	FU1, FU2 Fuse (1.25A)	REK–073	.....	.....	.....	
⚠	FU1, FU2 Fuse (1.25A)	.....	REK–101	REK–101	REK–101	
⚠	Power transformer (AC120V)	RTT1170	.....	.....	.....	
⚠	Power transformer (AC220/240V)	.....	RTT1137	RTT1137	.....	
⚠	Power transformer (AC110/120–127/220/240V)	.....	.....	.....	RTT1169	
⚠	Voltage selector	.....	.....	.....	PSB1002	
	Packing case	RHG1290	RHG1271	RHG1271	RHG1271	
	FL lens	RAH1867	RAH1870	RAH1870	RAH1867	
	Operating instructions (English)	RRB1092	.....	RRB1092	RRB1092	
	Operating instructions (English/French/German/Italian/Dutch/ Swedish/Spanish/Portuguese)	.....	RRE1041	.....	.....	
	Operating instructions (Spanish)	.....	.....	.....	RRD1088	

Note: TRANS PRI unit no different parts to be supplied.

DISPLAY UNIT

The display units (for CT–S609R/HEM and HB types) are the same as the display unit (for CT–S609R/KUC type) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		CT–S609R/ KUC type	CT–S609R/ HEM and HB types	
	V1401	RAW1081	RAW1073	

10. FOR CT–339/HB, SD AND CT–339–S/HEWM TYPES

CONTRAST OF MISCELLANEOUS PARTS

NOTES:
- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

The CT–339/HB, SD and CT–339–S/HEWM types are the same as the CT–339/HEM type with the exception of the following sections.

Mark	Symbol & Description	Part No.				Remarks
		CT–339/ HEM type	CT–339/ HB type	CT–339/ SD type	CT–339–S/ HEWM type	
	Display unit	Non supply	Non supply	Non supply	Non supply	
	TRANS PRI unit	Non supply	Non supply	Non supply	Non supply	
⚠	AC Power cord	PDG1003	PDG1036	PDG1013	PDG1003	
⚠	Power transformer (AC220/240V)	RTT1137	RTT1137	.....	RTT1137	
⚠	Power transformer (AC110/120–127/220/240V)	.....	.....	RTT1169	.....	
⚠	Voltage selector	.....	.....	PSB1002	.....	
	Operation knob	RAC1345	RAC1345	RAC1345	RAC1353	
	Slide knob (B)	RAC1392	RAC1392	RAC1392	RAC1613	
	Door panel	RAH1896	RAH1896	RAH1896	RAH1869	
	Dolby name plate	RAH1866	RAH1866	RAH1866	RAH1868	
	FL lens	RAH1870	RAH1870	RAH1867	RAH1870	
	Slide knob (A)	RAC1236	RAC1236	RAC1236	RAC1350	
	VR knob	RAC1363	RAC1363	RAC1363	RAC1496	
	Power button	RAC1364	RAC1364	RAC1364	RAC1497	
	Headphone knob	RAC1366	RAC1366	RAC1366	RAC1498	
	Eject knob	RAC1367	RAC1367	RAC1367	RAC1614	
	Tact knob	RAC1409	RAC1409	RAC1409	RAC1501	
	Knob	RAC1604	RAC1604	RAC1604	RAC1605	
	Bonnet	RXX1396	RXX1396	RXX1396	RXX1397	
	Front panel assembly	RXX1392	RXX1392	RXX1392	RXX1393	
	Packing case	RHG1272	RHG1272	RHG1272	RHG1273	
	Operating instructions (English)	.....	RRB1092	RRB1092	.....	
	Operating instructions (English/French/German/Italian/Dutch/Swedish/ Spanish/Portuguese)	RRE1041	.....	.....	RRE1041	
	Operating instructions (Spanish)	.....	.....	RRD1088	.....	

Note: TRANS PRI unit no different parts to be supplied.

DISPLAY UNIT

The display unit (for CT–339/SD type) is the same as the display unit (for CT–339/HEM type) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		CT–339/HB, HEM and CT–339–S/ HEWM types	CT–339/ SD type	
	V1401	RAW1073	RAW1081	

11. SPECIFICATION

System ..... 4 track, 2-channel stereo
Heads ..... "Hard permalloy" recording/playback head × 1
"Ferrite" erasing head × 1
Motor ..... DC servo capstan motor × 1
DC reel motor × 1

Wow and Flutter
[CT-S609R] ..... No more than 0.055% (WRMS, JIS)
No more than ±0.16% (DIN)
[CT-339] ..... No more than 0.055% (WRMS, JIS)
No more than ±0.16% (DIN)

Fast Winding Time
[CT-S609R] ..... Approx. 90 seconds (C-60 tape)
[CT-339] ..... Approx. 90 seconds (C-60 tape)

Frequency Response (at −20 dB recording level)
[CT-S609R]
Metal Tape ..... 25 to 20,000 Hz
Chrome Tape ..... 25 to 18,000 Hz
Normal Tape ..... 25 to 18,000 Hz
[CT-339]
Metal Tape ..... 25 to 18,000 Hz
Chrome Tape ..... 25 to 17,000 Hz
Normal Tape ..... 25 to 17,000 Hz

Signal-to-Noise Ratio
[CT-S609R]
Dolby NR off ..... More than 57 dB
[CT-339]
Dolby NR off ..... More than 57 dB

Noise Reduction Effect
Dolby B-type NR ON ..... More than 10 dB (at 5 kHz)
Dolby C-type NR ON ..... More than 19 dB (at 5 kHz)

Harmonic Distortion
[CT-S609R] ..... No more than 0.7% (at 0 dB)
[CT-339] ..... No more than 1.0% (at 0 dB)

Input (Sensitivity)
LINE (INPUT) ..... 63 mV (Input impedance 52 kΩ)
MIC (CT-339 only) ..... 0.4 mV

Output (Reference level)
LINE (OUTPUT) ..... 316 mV (Output impedance 3.3 kΩ)
Headphone (PHONES) ..... 0.25 mW (Load impedance 8 Ω)

Miscellaneous

Power Requirements
U.S., Canadian models ..... AC 120V, 60 Hz
U.K., Australian models ..... AC 240 Volts~, 50/60 Hz
European model ..... AC 220 Volts~, 50/60 Hz
Multi-voltage models ..... AC 110V/120V−127V/220V/240V (switchable), 50/60 Hz

Power Consumption
[CT-S609R] 19W
[CT-339] 18W

Dimensions ..... 420(W) × 120(H) × 265(D) mm
16-9/16(W) × 4-3/4(H) × 10-7/16(D) in

Weight
[CT-S609R] ..... 3.9 kg (8 lbs. 10 oz.)
[CT-339] ..... 3.9 kg (8 lbs. 10 oz.)

Subfunctions

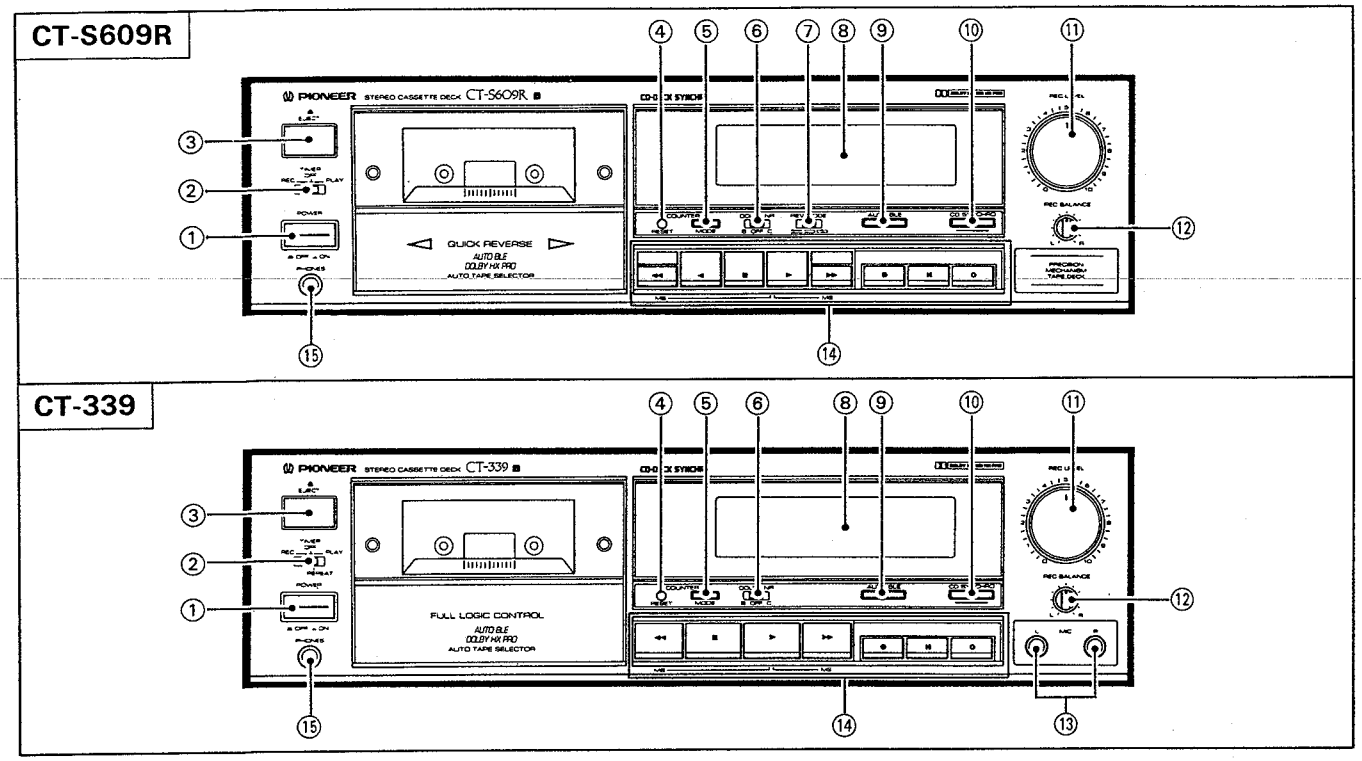
- Dolby B-type and C-type NR Systems
- DOLBY HX PRO system
- MPX FILTER (Interlocks with Dolby NR switch)
- Auto tape selector (NORM/CrO_2/METAL)
- Headphones jack
- 4-digit electronic tape/time counter (Displays the operation mode in 5 digits)
- Music search up to ±15 selections
- Automatic space recording mute
- AUTO BLE tuning system
- FL level meter 9 +1 segments (with peak hold)
- SR System remote control available
- CD•DECK SYNCHRO function
- Timer Recording/Playback (CT-339: Automatic repeat playback ON)
- Automatic reverse (CT-S609R only)
- Microphone jacks (CT-339 only)

Accessories

Operating instructions 1
Connection cord with pin plugs 2
SR Remote control cord 1
CD•DECK SYNCHRO control cord 1

NOTE:
Specifications and design subject to possible modifications without notice, due to improvements.

12. PANEL FACILITIES



① **Power switch (POWER ▙ OFF/▁ ON)**

② **[for CT-S609R]**
Timer mode switch (TIMER REC/OFF/PLAY)
[for CT-339]
Timer mode /repeat play switch
(TIMER REC/OFF/PLAY-REPEAT)

③ **Eject button (EJECT ⏏)**
- If the tape is moving (recording, playback, tape winding, etc.), press the stop (■) button before pressing this button.

④ **Tape counter reset button (COUNTER RESET)**

⑤ **Tape counter mode button (COUNTER MODE)**

⑥ **Dolby* NR switch (DOLBY NR B/OFF/C)**

*
- *Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.*
- *"DOLBY", the double-D symbol ◻◻ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.*

⑦ **[CT-S609R only]**
Reverse mode switch (REV MODE)

⑧ **Function display**

⑨ **AUTO BLE button**

⑩ **CD•DECK SYNCHRO recording button (CD SYNCHRO)**

⑪ **Recording level control (REC LEVEL)**

⑫ **Recording balance control (REC BALANCE)**

⑬ **[CT-339 only]**
Microphone jacks (MIC L, R)

⑭ **Operation buttons**
- ◀◀/MS : Fast reverse/music search
- ◀ : Reverse playback (CT-S609R only)
- ■ : Stop
- ▶ : Forward playback
- ▶▶/MS : Fast forward/music search
- ● : Recording
- ▮▮ : Pause
- O : Recording mute

⑮ **Headphones jack (PHONES)**

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PIONEER®
The Art of Entertainment

Service Manual

ORDER NO.
ARP2430

STEREO CASSETTE DECK

CT-S310

HEM, HB, SD

- **Refer to the service manual ARP2212 for CT–339.**
- **This manual is applicable to CT–S310/HEM, HB and SD.**

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CONTRAST OF MISCELLANEOUS PARTS

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- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

CT–S310/HEM, HB, SD and CT–339/HEM have the same construction except for the following:

Mark	Symbol & Description	Part No.				Remarks
		CT–339/ HEM type	CT–S310/ HEM type	CT–S310/ HB type	CT–S310/ SD type	
	DISPLAY unit	Non supply	Non supply	Non supply	Non supply	
	TRANSFORMER 1 unit	Non supply	Non supply	Non supply	Non supply	
⚠	AC power cord	PDG1003	PDG1003	PDG1036	PDG1013	
⚠	Power transformer (AC220-230/230-240V)	RTT1137	RTT1182	RTT1182	.....	
⚠	Power transformer (AC110/120-127/220/240V)	.....	.....	.....	RTT1169	
⚠	Voltage selector	.....	.....	.....	PSB1002	
	Operation knob	RAC1345	RAC1683	RAC1683	RAC1683	
	Door panel	RAH1896	RAH1992	RAH1992	RAH1992	
	Stabilizer panel	.....	RAH1483	RAH1483	RAH1483	for Door pocket
	Stabilizer (B)	.....	REB1085	REB1085	REB1085	for Door pocket
	Front panel assembly	RXX1392	RXX1469	RXX1469	RXX1469	
	FL lens	RAH1870	RAH1870	RAH1870	RAH1867	
⊙	Mechanism unit	RYM1148	RYM1097	RYM1097	RYM1097	
	Packing case	RHG1272	RHG1320	RHG1320	RHG1320	
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	RRE1041	.....	.....	.....	
	Operating instructions (English, French)	.....	RRE1052	RRE1052	RRE1052	
	Operating instructions (German, Italian, Dutch, Swedish, Spanish, Portuguese)	.....	RRD1120	.....	.....	
	Operating instructions (Spanish)	.....	.....	.....	RRD1119	

DISPLAY UNIT

DISPLAY unit of CT-S310/HEM, HB, SD and DISPLAY unit of CT-339/HEM have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		CT–339/ HEM type	CT–S310/HEM and HB types	CT–S310/ SD type	
	V1401	RAW1073	RAW1101	RAW1111	

TRANSFORMER 1 UNIT

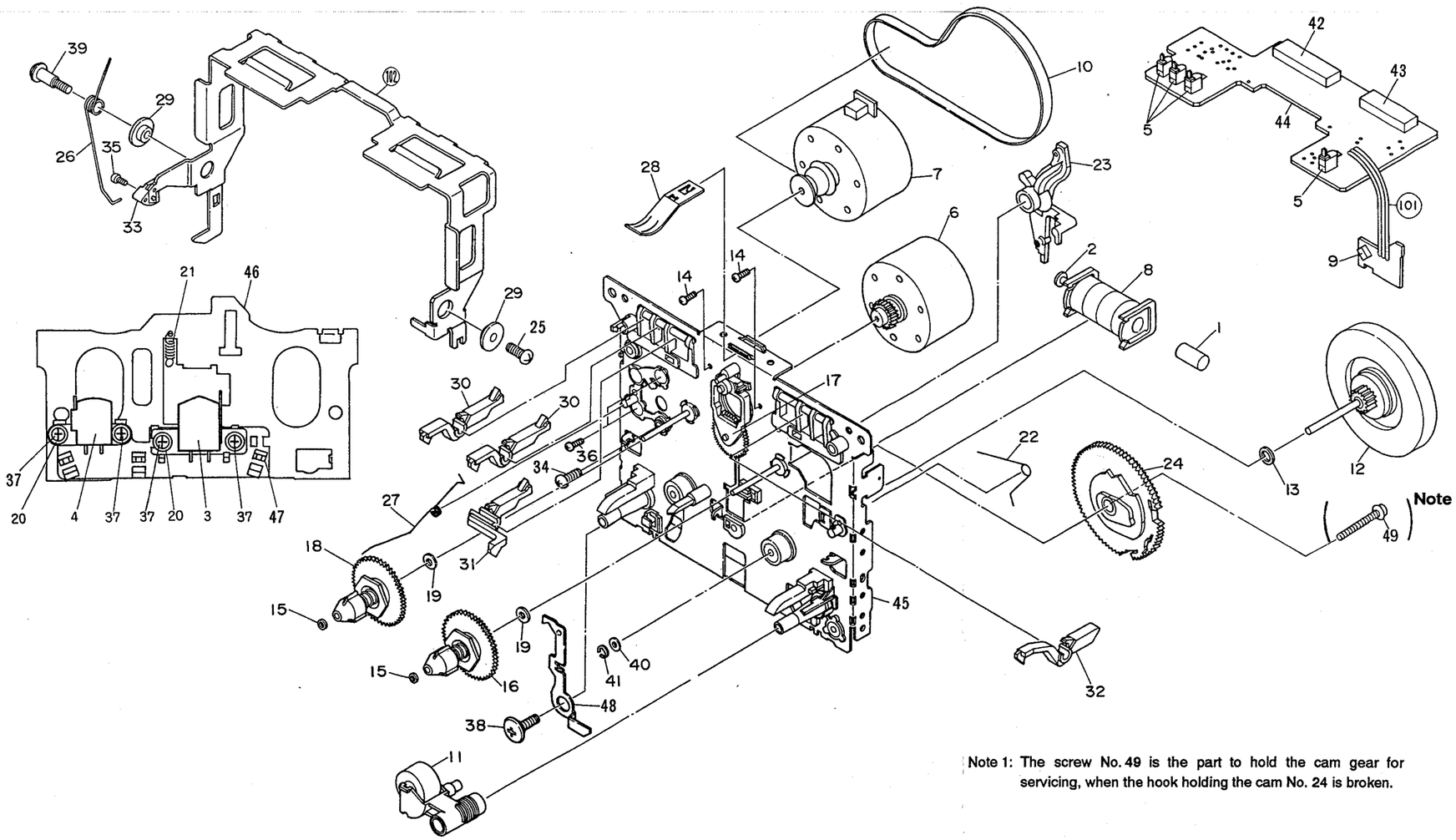
Although TRANSFORMER 1 unit of CT-S310/SD and TRANSFORMER 1 unit of CT-339/HEM are different in part number, they consist of the same components.

Parts List of Mechanism Unit (RYM1097)

NOTES:

- The parts with an encircled number are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Mark	No.	Description	Part No.
	1	Fixed core	RLA1130
	2	Planger	RLA1132
	3	Head (R/P)	RPB1039
	4	Head (E)	RPB1040
	5	Push SW	RSG1018
	6	MTR reel BLK	RXM1029
	7	MTR main BLK	RXM1032
	8	Solenoid BLK	RXP1010
	9	Photo-transistor	SPI33534FG
	10	Main belt	REB1163
	11	Pinch roller ass'y	RXA1183
	12	F/W ass'y	RXA1346
	13	Washer	WA26D045D025
	14	Pan 2.6×6.4 ZN	RBA1076
	15	Washer	RBF-057
	16	Reel base BLK	RXA1184
	17	Idle BLK	RXA1248
	18	Reel base BLK	RXC-040
	19	Washer	RBF1038
	20	Azimuth SP	RBH1076
	21	Head base SP	RBL1003
	22	Slide SP	RBH1239
	23	Play arm	RNK1525
	24	Cam gear (3R)	RNK1672
	25	Pan TT 2.6×5 ZN	RBA1079
	26	Lever SP (L) (EJECT)	RBH1231
	27	SP cap (L) (EJECT)	RBH1234
	28	Spring (CASETTE)	RBK1031
	29	Lever (Color A)	RLA1133
	30	Detector lever (REC)	RNK1527
	31	Metal dector lever (L)	RNK1529
	32	Dector lever (P)	RNK1543
	33	Hook	RNM-160
	34	Screw	PBZ30P080FMC
	35	Screw	PCZ20P040FMC
	36	Screw	PMZ26P050FMC
	37	F lock screw	RBA1031
	38	Screw (7.7)	RBA1048
	39	Screw	RBA1078
	40	Washer	WA26D047D050
	41	Washer	YE15FUC
	42	Connector (8P)	RKP1327
	43	Connector (6P)	RKP1359
	44	P.C. board	RNP1279
	45	Chassis base BLK	RXA1345
	46	Head base	RNE1390
	47	Head spacer	RNK1631
	48	Arm cap (L) (EJECT)	RNE1199
	49	Screw	RBA1068
	101	Jumper (3P)	RDD1130
	102	Eject lever L	RNE1301



Note 1: The screw No. 49 is the part to hold the cam gear for servicing, when the hook holding the cam No. 24 is broken.